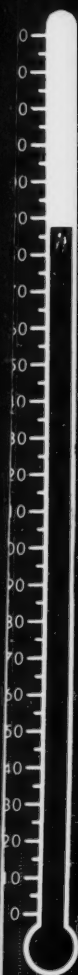
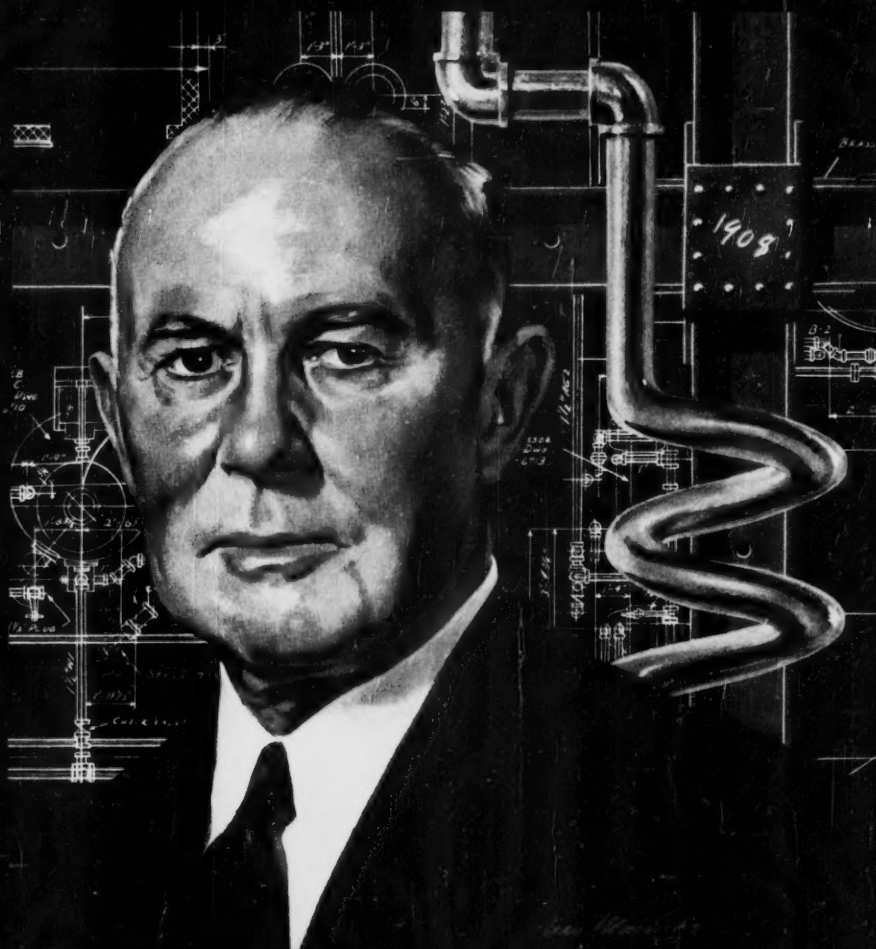


# BUSINESS WEEK

MAY 28, 1949



YEAR  
AGO  
WEEK  
AGO



Carl Franklin Braun: Believes the real job of an executive is to teach (page 6)

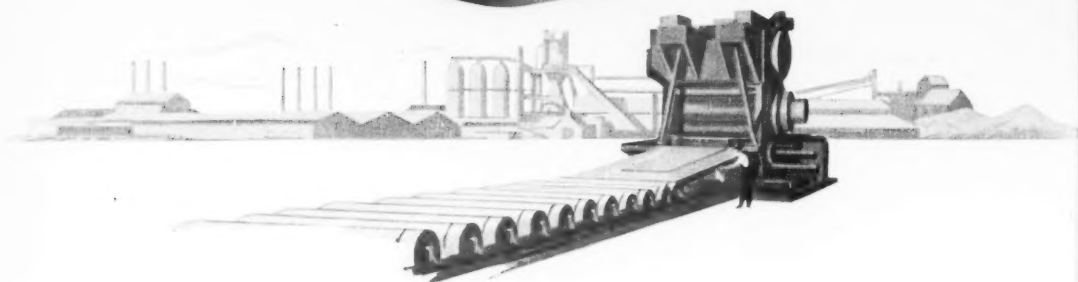
BUSINESS  
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A MCGRAW-HILL PUBLICATION

TWENTY-FIVE CENTS

**BOWER BEARINGS ARE**

→ SPHER-O-HONED



**... A SYNONYM FOR SOUND BEARING PROGRESS**

*Spher-O-Honed* is more than just a word. It's a formula—a basic concept of how roller bearings can be made better! ☆ Bower bearings are *Spher-O-Honed*. They offer you improvements in design, in engineering, in manufacture which are fundamental to sound performance. Spherical roll-ends and cone flange, a large oil groove, and durable, precise races—these are features of Bower *Spher-O-Honed* bearings which make them last long and last well. ☆ If your product demands bearings which—above everything else—are dependable and economical through and through, then remember the word *Spher-O-Honed* and the name Bower—both are synonymous with sound bearing value.

**BOWER ROLLER BEARING COMPANY • Detroit 14, Michigan**

**BOWER**  
**ROLLER BEARINGS**





*"Vision is Indispensable to Progress"*

## A growing river of Steel brings you this flood of useful, durable products

From steelmakers' furnaces pour the molten metals for thousands of the things Americans enjoy today—from bridges to bicycles, from ships to scissors, from railroads to razors, from tunnels to tin cans.

For steel is not just *one* metal. There are 500 different kinds of steel, supplied in 100,000 sizes, shapes, finishes and compositions. Because of the vision and skill with which steelmakers have adapted their products to new uses, steel has truly become the backbone of our civilization.

One important phase of steel's multi-million dollar research program is the use of oxygen in blast and open-hearth furnaces, which promises material increases in production. Steelmen are also working to find ways of using lower-grade ores.

New means of casting steel direct from melt into semi-finished form—by-passing the ingot stage and blooming mills—is another research development which, together with other improvements, may lead to still greater production efficiency in new and existing steel manufacturing facilities.

From raw steel—made tougher, or more pliable, in new and old forms, with new properties and qualities—will come the products of tomorrow. Research men in steel companies are working alone, working together, and working with manufac-

turers to develop the specialized metals which these new products require.

Where else but in America are men as free to work out new ideas . . . to create new products . . . to participate in the ownership and management of business? Where else are so many people so profitably employed? Where else is the standard of living for the average man so high?

Vision is indispensable to progress—and progress, in turn, demands freedom.

**BANKERS TRUST COMPANY**  
NEW YORK

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION



Joe inspects some of his crop seed at the local Farmers Union Cooperative Warehouse, of which he is president and director. Seed and livestock profits have enabled the Harlands to rebuild or remodel every building on their ranch.



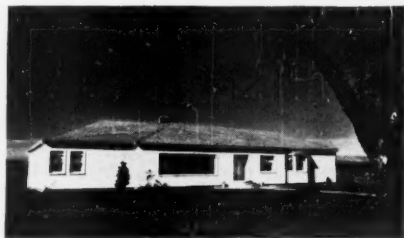
How good  
farming  
brought  
good  
living to a  
"hopeless"  
ranch

Ploughing profits back into their land instead of seeing how much they could get out of it lifted the Harlands' debt-ridden ranch into prosperity . . . and raised this plucky Country Gentleman family from tenancy to free-and-clear ownership.



Smart dining room furniture is made to order. "Nearly every automatic convenience" is in 20-foot-long kitchen, built largely from plans in an equipment and appliance maker's booklet.

Hours of "magazine looking" and idea clipping inspired the new dream house. Joe and two sons built it themselves with help of one professional carpenter. Spacious U-shaped home has 5 bedrooms, 2 baths, and a full basement.



*The best people in The Country*

turn to Country Gentleman for Better Farming, Better Living



**I**N Oregon's Willamette Valley the neighbors watch the Harlands. "The family sets a pattern for the entire community," they say. This is high praise in an area where farm living standards are unsurpassed, in a state where a greater percentage of farm children goes to college than in any other.

Joe Harland is one of the Valley's most successful seed and livestock producers. Yet when he took over his 712-acre property in 1923, it was "the most hopeless ranch you would want to see." When the depression struck, he lost the ranch and was left with a \$5,000 machinery debt.

But the insurance company holding his mortgage saw in Joe the qualities which earned his neighbors' respect—courage, self-reliance, the will and ability to be a good farmer. So they kept Joe on as a renter.

The Harlands farmed—and lived—up to their reputation and neighbors' confidence. Today they look from the win-

dows of their new home to the fertile acres they own. With the \$20,000 worth of equipment he has bought, Joe has built up his soil, grosses from \$20,000 to \$30,000 a year.

Exemplary farmers, the Harlands are equally good citizens. Joe and his wife are leaders in community activities, their children in farm clubs and social life of the Valley's youth.

This story of "the family the neighbors watch" is told in detail in the June issue of *Country Gentleman* . . . to inspire the Harlands' *Country Gentleman* "neighbors" throughout Rural America to win better living through better farming.



*What better guide is there for reaching the nation's best farm families than this: Every full-line farm implement manufacturer advertises in Country Gentleman!*



Designed primarily for the children's entertaining, 37½-foot-long porch has record player, plenty of recordings, and games.

Bill, Oregon State student, helps his father keep farm equipment in apple order during vacations. Machine shop includes drill, air compressor, power grinder, forge.



Power-minded Joe owns two "cat" tractors, self-propelled combine, spray outfit. He carries insurance on machinery, truck and car; buildings; crops; workmen's compensation, and life insurance.

Parties and trips to town call for plenty of new clothes. Harland basement includes combination sewing room and automatically equipped laundry.

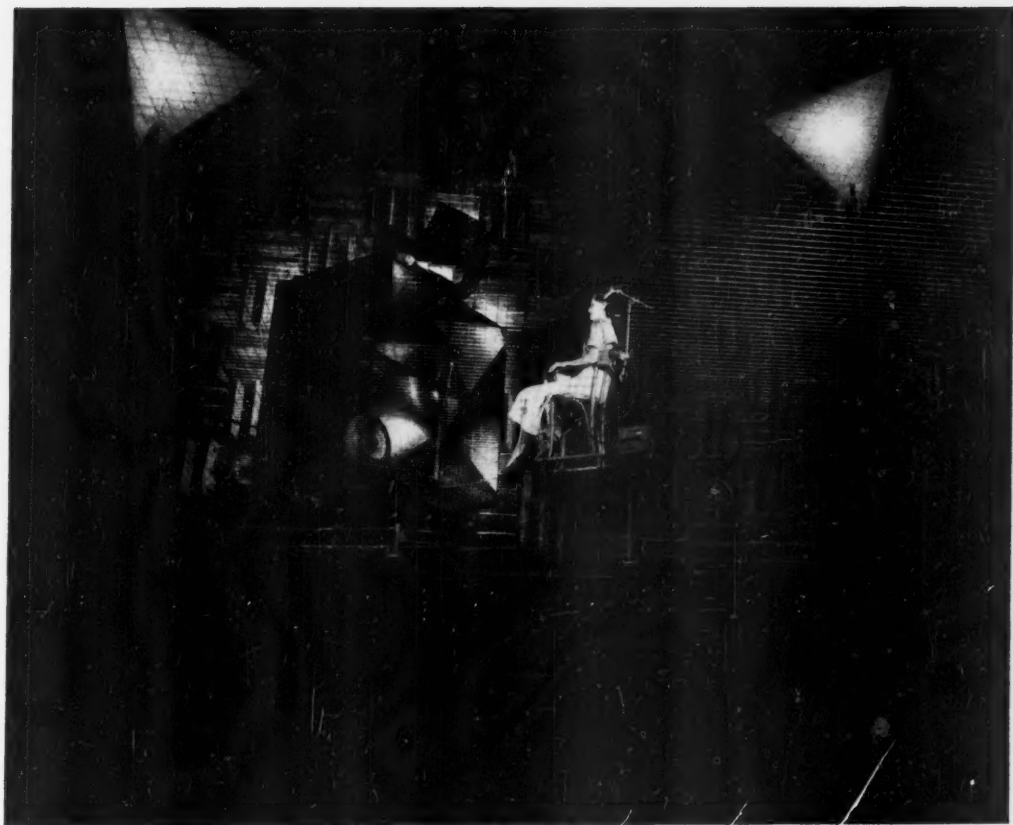


**Country Gentleman**

2,300,000 circulation concentrated among the "top-half" farm families who receive 90% of the nation's farm income.

In over half of all U. S. counties, *Country Gentleman* circulation exceeds that of the biggest general weekly and biggest monthly magazine.





## Your ear is our customer

**WHAT DOES SHE HEAR UP THERE IN THE AIR? . . .** The young lady is suspended on a steel netting in a soundproofed room at Bell Telephone Laboratories. From the loudspeakers in front of her come sounds differing in frequency and intensity. She seeks to tell one from another, recording her judgment by pressing a switch. Meanwhile, as a check on what happens within her ear, electrical measurements of the same sounds are made by picking them up through a small tube just inside the ear canal. Tests like this on many people help build easier listening into your telephone system.

**ONE** of the big jobs of Bell Laboratories is to make it possible for you to hear clearly and without strain when you use the telephone.

So Bell Laboratories scientists study what happens *inside* as well as *outside* your ear when you hear. For sound changes the minute it

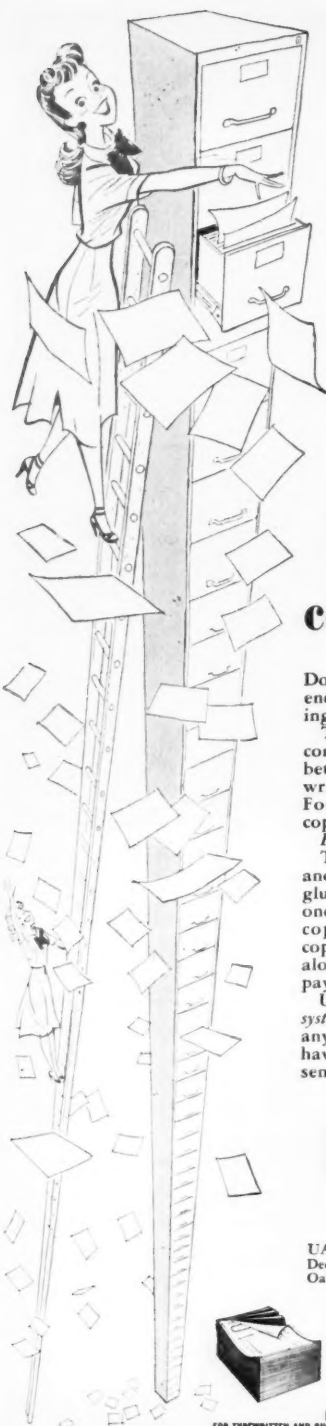
enters the ear, and measurements made even an inch away won't do.

By learning *what happens when you hear*, Bell Laboratories make familiar voices easy to identify by telephone. This is just one part of their continuing effort to make service better and to keep it low in cost.

**BELL TELEPHONE LABORATORIES**  
—A great research organization,  
working to bring you the best possible  
telephone service at the lowest  
possible cost.

**Bell Telephone System**





We eliminated  
50,000  
file copies

with

## UARCO combined forms

Do you have inter-office correspondence? Then you can make similar savings—perhaps even more!

This manufacturer of heating and air conditioning has two plants. Each memo between them takes 4 copies: original, writer's copy, "tickler," and file copy. Four to write, four to reply—eight copies in all.

*But not on Uarco combined forms!*

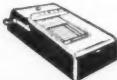
These new forms combine sending and reply into one set. Carbons come glued in place . . . copies separate with one swift motion. The saving? Four copies with every writing—50,000 copies a year! That's \$250 in paper cost alone, to say nothing of the savings in payroll!

Uarco designs such *engineered forms systems* for any business . . . any kind . . . any size. No cost. No obligation. You have only to phone your Uarco Representative to see where *you* can save!



### Business Forms

UARCO INCORPORATED  
Deep River, Conn.; Chicago, Ill.; Cleveland, Ohio  
Oakland, Calif. Offices in All Principal Cities



CONTINUOUS-STRIP FORMS  
FOR TYPEWRITTEN AND BUSINESS MACHINE RECORDS

SINGLE SET FORMS

AUTOGRAPHIC REGISTERS  
AND REGISTER FORMS

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## THE COVER

When he was a lad in high school at San Jose, Calif., Carl F. Braun was fascinated by his father's business letters. The senior Braun had a knack of expressing his thoughts in plain words—a talent his correspondents lacked.

Ever since those days at his father's Santa Clara Valley fruit ranch and packing plant, Braun has tried to cultivate the same fluidity of expression—in himself and in those around him. He has done this by reading good prose every day, and by writing—and by encouraging others to do the same.

• **Getting Employees to Read**—This month, the 11th volume he has written for free distribution to the employees of C. F. Braun & Co., Alhambra, Calif., rolled from the presses—a press run of 4,200 copies in hard covers. The title: "Two Hundred Good Books." It's an exposition of the delights he has found in studies of the arts and the social sciences.

Braun's trick in encouraging people to read is to start them with books they grasp easily, then push on from there. Last year the company's non-profit bookstore sold 3,500 books.

• **Human Values**—A strange preoccupation for the chief executive of a fluid-processing-apparatus company with billings of \$55-million a year? Braun doesn't think so. In his view, human satisfactions pay dividends in a highly competitive capital-goods business.

Braun has three sons, all employees of his company, and five grandchildren. Significantly the sons are not in the inner circle of management, although they have responsible jobs. All got their first taste of the business when they were able to lift a shovel. Except that they can call the president "dad," they enjoy no privilege of rank.

Braun has three hobbies—reading, writing, and horseback riding. He smokes Turkish cigarettes, likes Bing Crosby recordings, uses mild profanity, and reads again and again the book of Matthew in the English Bible.

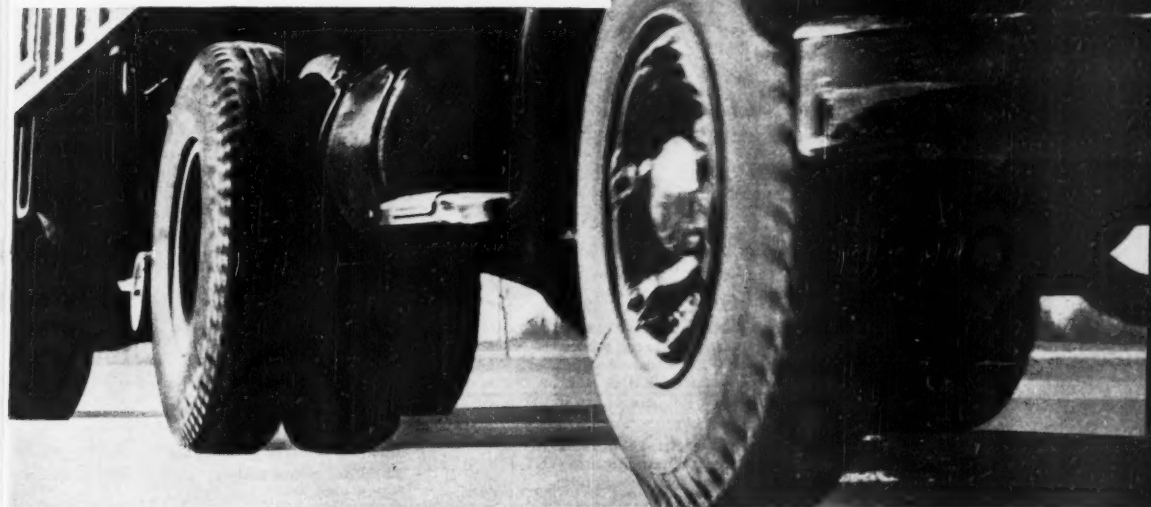
—Complete story on C. F. Braun & Co. starts on page 76. Cover painting by Tran Mawick

"14 months without a single tire failure," says Ohio gasoline transporter. "That's the record of my first four nylon-carcass tires. I'm ordering 20 more."

"My nylon truck tires have outlasted other tires 3 to 1," says a Texas trucker, "and I'm expecting them to carry on for another 30,000 miles."

**From a Vermont long-distance hauler:** "I used to get carcass failures at about 15,000 miles. My nylon tires have run 24,000 miles without a failure—appear to be only one-third gone."

**From Michigan:** "Extremely heavy duty on my operation caused tire failures. I planned to install larger tires, which involved buying new rims, wheels and axles. Tried nylon tires. They did the job, saved cost of new parts."



## NYLON TIRE PERFORMANCE IS GOOD NEWS FOR ANY INDUSTRIAL FABRIC USER

No other fabric takes such day-in, day-out punishment as that in a truck tire.

Take the problem of flex fatigue. The fibers in a tire carcass are forced to bend, stretch and contract rapidly and violently under heavy loads. This terrific beating is aggravated by temperatures that go above boiling. Add to this the crushing impact whenever a speeding heavily loaded tire hits a curb, bump or rock.

Truck operators are finding that tires with nylon carcasses stand such punishment far better than any others. This means that nylon tires cost them less per ton mile, reduce road delays, improve safety. And nylon's ability to stand the tough-

est service means that carcasses can take more recaps.

. . .

**Get the facts on Du Pont nylon fibers.** Their unusual performance properties may help you develop a new product, improve an existing product or process.

Nylon is tough and durable . . . strong, yet light. It resists deterioration by mildew, soil, and marine rot and alkalis. It's elastic and resilient. And a nylon fabric can be heat-set to hold shape.

Find out how nylon is being put to work by many industries—improving products and production methods. Write for 32-page booklet, "Nylon Textile Fibers in Industry."

It fully describes nylon's remarkable properties and their industrial applications. And tell us your fiber or fabric problems. We'll be glad to work with you in solving them. Address Room 6510-J, Nylon Division, E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Delaware.

**DU PONT  
NYLON FIBERS**

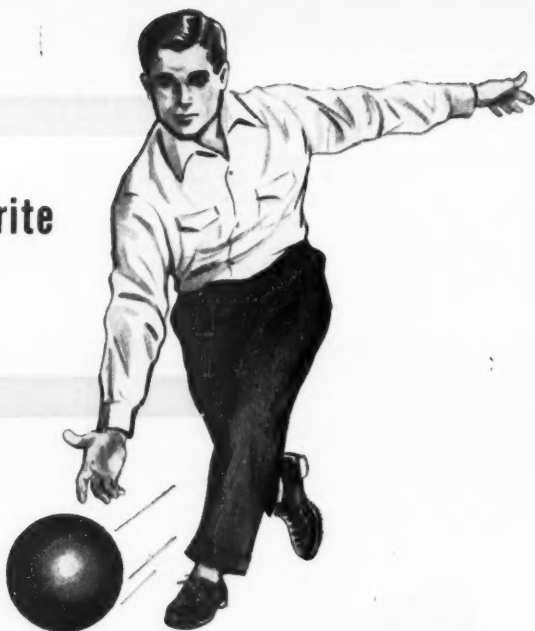


BETTER THINGS FOR BETTER LIVING  
... THROUGH CHEMISTRY

*For nylon . . . for rayon . . . for fibers to come . . . look to Du Pont*



## What's *Your* favorite indoor sport?



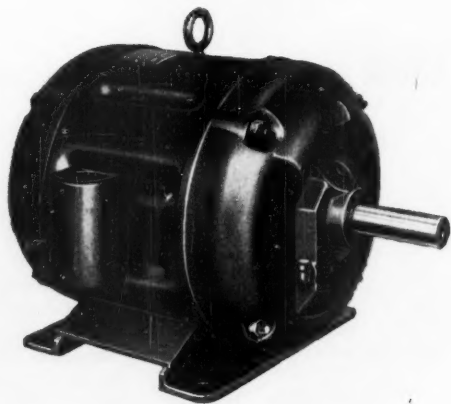
Bowling is one of America's favored indoor pastimes. Yours may be one of any number of others, each with its own enthusiasts—billiards, dancing, ping pong, bridge. . . . But whatever it is, your pleasure is always doubled when you can enjoy it in air conditioned surroundings.

Wagner motors help supply the zestful cool-fresh air for many of the systems that air condition not only sports emporiums, but industrial, commercial and home buildings as well.

Air conditioning is but one of the hundreds of fields that employ dependable, efficient Wagner motors. There is a Wagner motor to answer any requirement for standard type electric motors in your manufacturing process or in your product. You'll save time, money and worry with a motor from the complete Wagner line, which includes sizes from 1/125 hp. to 400 hp.

Wagner engineers are qualified to specify the correct motor for *your* requirements. Consult the nearest of our 29 branch offices or write us.

In Cincinnati, Ohio, patrons of Mergard's Northside Recreation Building enjoy air conditioning powered by a Wagner 50-hp polyphase motor.



### Wagner Electric Corporation

6460 PLYMOUTH AVE., ST. LOUIS 14, MO., U. S. A.



ELECTRIC MOTORS • TRANSFORMERS  
INDUSTRIAL BRAKES

AUTOMOTIVE BRAKE SYSTEMS—AIR AND HYDRAULIC

# BUSINESS OUTLOOK

BUSINESS WEEK

MAY 28, 1949



May is going into the record as another month of gradual decline.

All the so-called business barometers—steel and auto output, fuel production, rail freight, electric-power use—were off.

And the downtrend in unemployment early in April didn't hold. Joblessness began to rise late that month, has continued this month. Considerable shortening of work-weeks also took place in May.

•  
Most significant employment feature has been the drop in factory jobs. This total was down 330,000 from March to April.

Factory employment now is about 700,000 below a year ago; it is 1½-million below last September's postwar peak.

And manufacturing payrolls have shrunk by more than the number of jobs lost. Many of those still employed are not putting in a full 40 hours each week—and few indeed are collecting overtime.

Average weekly earnings in manufacturing dropped from \$53.63 in March to \$52.63 in April. The top was \$55.03 in December.

•  
Shorter work weeks and elimination of third shifts show up in cotton textiles. Spinning in April was at 97.9% of capacity, based on 40 hours a week for two shifts.

That's down from 106.8% in March and 136.1% a year earlier.

•  
Steel output this week was scheduled at the lowest rate of the year. Moreover, it was below the same week last year for the first time.

That sounds bad. Yet steel this week is running at 94.1% of capacity. That represents output of 1,734,700 tons.

The actual rate, of course, is still high. It's just that each week brings another decline—this one from the previous week's 95.6%. The slide has carried the rate down from 102% in March.

•  
Pig iron is off, too. Plenty of pig still is made into steel. But some that the mills make for sale to others has gone begging lately.

Thus, Republic Steel this week closed its Number 2 blast furnace in Cleveland—first closed for lack of demand since before World War II.

•  
Some of the slack in iron and steel is due to less demand from auto makers. But this dip in use is due solely to strikes.

The Ford and Bendix walkouts have made the most difference.

Ford, in fact, has told steel mills and parts suppliers to hold off on everything upon which work has not actually been started. This will cause some secondary unemployment as well as smaller demand for steel.

Weekly production of cars and trucks, meanwhile, is down to between 110,000 and 115,000. The postwar top was 141,000 a month ago.

•  
Electric power output continues to be one of the few major business indicators ahead of a year ago.

But, even here, the rate of gain over a year ago is smaller.

Power output four weeks ago was 5.2% ahead of the same 1948 week. It then dipped to a 3.9% gain, then to 2.9%. Last week, however, it rallied to a 3.3% advantage.

Significantly, the central industrial district fell 0.4% behind a year ago

# BUSINESS OUTLOOK (Continued)

**BUSINESS WEEK**  
**MAY 28, 1949**

week before last. That's important because these Great Lakes states and adjacent territory are loaded with diversified inventory.

But central industrial last week came back to show a 2.5% gain.

Figures on rail-freight movement are the worst since February.

Early in April, freight made a fairly favorable showing. However, that was mostly due to the coal shutdown a year earlier.

For the last four weeks, declines have averaged 10% from 1948.

Heavy storage stocks continue to pinch back on fuel production.

This is true of both crude oil and coal. Bituminous-coal production is running 11-million tons a week, against a recent rate above 12-million.

Coal users have built stocks to the point where not even the threat of a strike is spurring them to add much more.

For crude oil, output now is 4.9-million barrels a day. That compares with 5.4-million a year ago, and the 1948 peak of nearly 5.7-million.

Oil problem: how to get home heaters to fill their fuel tanks early when they are hoping for further price cuts before autumn. There is no threat of oil shortage this year—but a bad winter could cause one.

Nonferrous metals still haven't seen the last of their troubles.

Nickel is the latest to feel lower demand. International Nickel this week said it was going to cut production 10%.

The price of lead went down another cent a pound on Monday to 13¢. Zinc followed with a similar cut on Tuesday, now stands at 11½¢.

That flurry of copper buying (BW-May21'49,p34) lacked carry-through.

Copper prices definitely were softer this week. It started with the sale of some foreign copper below the going price of 18¢.

Then, on Wednesday, the U. S. Mint opened bids on 300 tons of the metal. There were five bidders. All quoted less than 18¢, the lowest 17½¢.

True, the mint was buying copper that generally sells at a small discount. Yet the low bid shaded even this discount.

Market analysts, at midweek, inclined to 17½¢ as the real price.

June graduates' job chances are taking a late turn for the better.

Northwestern National Life Insurance Co. finds colleges disappointed in the main. But, in the last week of its annual survey, the insurance company found the reports showing a much better tone.

Half the colleges reporting late found job offers up to the 1948 level.

Manufacturers have done better at cutting their buying of materials and parts than at disposing of their finished goods.

Makers of soft goods cut their own buying last July; now they have lopped \$700-million off the value of their purchased materials. Yet inventories of finished goods went up from \$5,756-million last July to \$6,608-million in March.

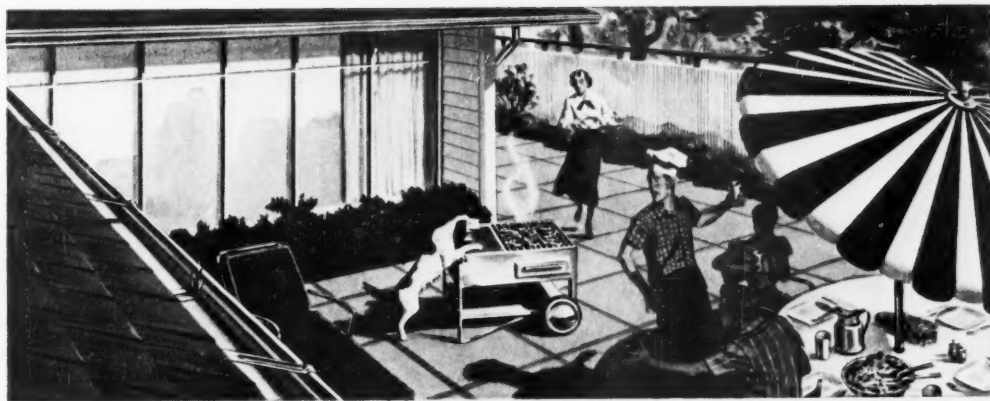
Manufacturers of durables didn't stop buying for inventory until December. And finished inventory rose right through March.

These facts show why a real sales job is indicated.

To bring America better products



*Permanente Metals produces almost as much aluminum*



*as the entire industry produced ten years ago!*

OF ALL METALS, aluminum most effectively combines lightness, strength, beauty, economy, freedom from rust.

That's why it's in such demand for cooking utensils, appliances, building materials, furniture... plus thousands of other products. That's why it is now essential to more than 17,000 American enterprises, employing more than a million people.

Helping to meet this demand, Permanente Metals produces more than one quarter of a billion pounds of Kaiser Aluminum a year. Almost as much as the entire industry produced a decade ago!

Combining this vast production with standards of quality and dependability unsurpassed in the industry... Permanente Metals

is now a key source of aluminum for American manufacturers. Permanente Products Co., 505 Kaiser Bldg., Oakland 12, Calif.

**Permanente Metals**

PRODUCERS OF

**Kaiser Aluminum**

**A major producer in a growing industry**

## Every tenth employee at MICRO SWITCH is a qualified engineer!



High on the list of reasons for MICRO SWITCH's pre-eminence in the comparatively young precision switch industry is the wealth of engineering talent in the organization. By actual check, it was recently revealed that *one out of every ten* members of the MICRO organization is an engineer—fully qualified by education, experience and specialization in precision-switch techniques to make a definite contribution to MICRO's continuing growth and sustained leadership in this field.

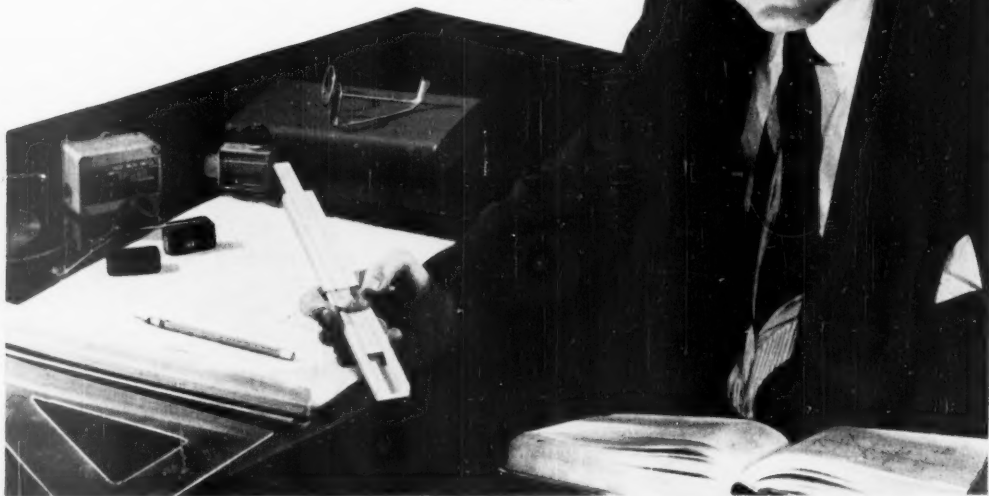
Many of these engineers are located in the MICRO SWITCH plant, collaborating with metallurgists, laboratory and production men... designing and redesigning... working on improvements and refinements... planning structural and design innovations in anticipation of new switch applications, new requirements.

MICRO SWITCH branch offices are staffed with

engineers who cooperate with precision-switch users in many industries on problems of switch applications—and give expert advice on special designs for special, and often unusual, purposes and uses.

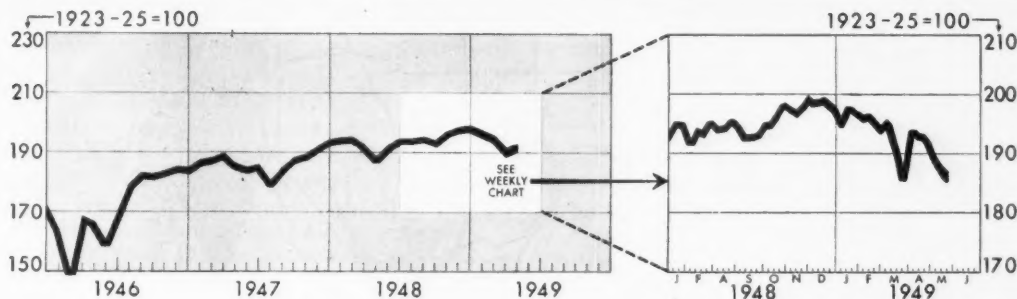
Precision switches are distinctly *not* a side line with MICRO engineers—or with the entire MICRO SWITCH organization. They constitute *one hundred per cent* of our business in shop, plant, laboratory and field. This fact alone goes far to explain why American industry comes to us more and more each year with switch problems of amazingly diverse types... and why MICRO SWITCH continues to be, indisputably, "first name in precision switches"! MICRO SWITCH, Freeport, Ill. Branch Offices: Chicago, New York, Boston, Cleveland, Los Angeles. Sales Representatives: Portland, St. Louis, Dallas, Toronto.

### MICRO...first name in precision switches





# FIGURES OF THE WEEK



**Business Week Index** (above) . . . . . \*186.8 †187.6 192.8 192.9 162.2

## PRODUCTION

	5 Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
Steel ingot operations (% of capacity) . . . . .	94.1	95.6	97.5	96.8	97.3
Production of automobiles and trucks . . . . .	114,987	†119,634	141,227	91,138	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands) . . . . .	\$25,488	\$23,499	\$24,571	\$22,299	\$19,433
Electric power output (million kilowatt-hours) . . . . .	5,255	5,257	5,326	5,085	3,130
Crude oil (daily average, 1,000 bbls.) . . . . .	4,904	4,899	4,916	5,439	3,842
Bituminous coal (daily average, 1,000 tons) . . . . .	1,842	1,867	1,908	2,208	1,685

## TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars) . . . . .	72	72	74	79	86
All other carloadings (daily average, 1,000 cars) . . . . .	57	56	54	62	52
Money in circulation (millions) . . . . .	\$27,392	\$27,452	\$27,408	\$27,690	\$9,613
Department store sales (change from same week of preceding year) . . . . .	-3%	†+2%	+7%	+8%	+17%
Business failures (Dun & Bradstreet, number) . . . . .	172	171	198	92	228

## PRICES (Average for the week)

Cost of Living (U. S. Bureau of Labor Statistics, 1935-39 = 100), April . . . . .	169.7		169.5	169.3	105.2
Spot commodity index (Moody's, Dec. 31, 1931 = 100) . . . . .	344.0	344.2	345.8	425.7	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100) . . . . .	228.5	230.3	232.5	275.3	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100) . . . . .	292.6	290.2	286.3	389.7	146.6
Finished steel composite (Steel, ton) . . . . .	\$93.55	\$93.55	\$94.45	\$80.27	\$56.73
Scrap steel composite (Iron Age, ton) . . . . .	\$22.08	\$22.75	\$22.92	\$40.66	\$19.48
Copper (electrolytic, Connecticut Valley, lb.) . . . . .	17.925¢	18.000¢	20.000¢	21.500¢	12.022¢
Wheat (Kansas City, bu.) . . . . .	\$2.23	\$2.25	\$2.25	\$2.39	\$0.99
Sugar (raw, delivered New York, lb.) . . . . .	5.79¢	5.80¢	5.63¢	5.14¢	3.38¢
Cotton (middling, ten designated markets, lb.) . . . . .	32.73¢	32.88¢	33.19¢	37.78¢	13.94¢
Wool tops (New York, lb.) . . . . .	\$1.571	\$1.575	\$1.554	\$1.977	\$1.281
Rubber (ribbed smoked sheets, New York, lb.) . . . . .	17.78¢	18.28¢	18.40¢	23.31¢	22.16¢

## FINANCE

90 stocks, price index (Standard & Poor's Corp.) . . . . .	116.3	118.4	117.0	131.4	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's) . . . . .	3.44%	3.45%	3.45%	3.35%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's) . . . . .	2.71%	2.71%	2.70%	2.76%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average) . . . . .	1½-1½%	1½-1½%	1½-1½%	1½%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate) . . . . .	1½-1½%	1½-1½%	1½-1½%	1½%	4-½%

## BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks . . . . .	45,816	45,921	45,757	46,440	††27,777
Total loans and investments, reporting member banks . . . . .	62,154	62,049	61,267	63,456	††32,309
Commercial and agricultural loans, reporting member banks . . . . .	13,747	13,908	14,304	14,208	††6,963
Securities loans, reporting member banks . . . . .	2,266	1,829	1,987	1,574	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks . . . . .	33,872	34,111	32,765	35,866	††15,999
Other securities held, reporting member banks . . . . .	4,406	4,353	4,358	4,234	††4,303
Excess reserves, all member banks . . . . .	1,080	860	880	294	5,290
Total federal reserve credit outstanding . . . . .	20,735	20,559	22,050	20,674	2,265

\*Preliminary, week ended May 21st.

†Revised.

††Estimate (BW—Jul. 12 '47, p.16)



"Now...some diamond-back terrapin and two pounds of mush"

That's an order to baffle most markets—but not the great Reading Terminal Market, in the heart of Philadelphia's business district.

For here you can buy delicacies like terrapin or truffled *foie gras* . . . or scrapple and mush from the Pennsylvania Dutch country . . . or virtually anything else that's good to eat. Noon-times business executives prowls about the stalls, looking for something special for the family menu.

The Market is a famous fixture in Philadelphia—a city which has many

special characteristics, and its own ways of doing things. If you are in business here, you can profit through a genuine *understanding* of the city—and we at The Pennsylvania Company will be glad to help you to that knowledge.

We are in close touch with the entire community, for our 19 offices—more than any other local bank—cover every major part of the city and suburbs. That means you, as our customer, will find a ready introduction to the Philadelphia business "family."

It doesn't matter what size your firm is; thousands of small businesses use our services, as well as two out of three of the nation's largest corporations. All benefit through the co-operation of our modern-minded officers . . . the way we speed check-clearances by air mail . . . the 24-hour-a-day operation of our transit department.

Drop us a line, or let's arrange a meeting. We'll explain the many ways we can help *your* operation run more smoothly in Philadelphia—America's third largest market.

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# WASHINGTON OUTLOOK



**PUMP PRIMING** talk is cropping up again in the bureaus and agencies around town. So far it's on an "if" basis—if unemployment rises to 4.5-million.

The feeling is that whenever that many people are looking for jobs, government has to create some.

There were, by government count, 3,016,000 jobless in April. And the figure is certain to be higher in the fall. That's true if for no other reason than this: New workers are coming into the labor force faster than new jobs are opening up.

Talk of pump priming is a measure of how far Truman's people have strayed since January. Instead of tilting at inflation and planning a better tomorrow, they're worrying now over deflation and looking about for crutches.

There is the made-over Spence plant-expansion bill we have told you about (BW-May7'49,p15). It's being put forward now as a device to make some jobs, no longer as a way to lick shortages.

Also, those familiar initials—PWA—are popping up again. There's talk of government grants for building projects and the jobs they will make. The idea is that it would be handy to have a pool of money on tap; you could dip into it to prop up a town or an area where, say, the big industry shuts down.

All this points up why no one is tackling head-on the fiscal mess the government is getting into (BW-May21'49,p15).

The quandary: To cut spending drastically would mean Washington would be buying less steel, cement, and carbon paper; to raise taxes would take money that could go for business expansion.

**COLOR TELEVISION** is up again for a verdict. Sen. Johnson is asking the Bureau of Standards to appraise the feasibility of giving color a place on the ultra-high-frequency band. Johnson's Commerce Committee already is poking into FCC's radio-TV policies—including its delay of color television.

**FALLING METAL PRICES** are a hot potato for Paul Hoffman's ECA.

Last winter, Marshall Plan nations tied themselves up with contracts for their 1949 needs for copper, lead, and zinc at then prevailing prices; it looked like smart trading in a rising market.

Now copper, at 18¢, is off more than a nickel

a pound. Lead is down 8½¢ a pound, to 13¢. Zinc is down 6½¢ too, to 11¢.

Britain is caught worst of all—and Cripps is being put on the pan at home for it.

Hoffman's dilemma:

**Should he stop dollar** aid ticketed for such contracts? This would give the buyer nations a trump card in renegotiating prices with U.S. suppliers. Or—

**Should he pay off** on the contracts as written? This would open Hoffman to charges of wasting taxpayers' dollars, of breaking the ban on paying higher than prevailing market prices.

Prospect: Hoffman will tell the buyer nations ECA won't finance their bad guesses, won't approve payments over market prices.

**THE NAVY'S CHALLENGE** to the Air Force—pit your B-36 against our carrier-fighter Banshee—is backed by a secret Navy test that convinces the admirals they can shoot down the superbomber.

Here is what the Navy has done:

Two Banshees were sent out to fly at 40,000 feet, wing-to-wing, as a simulated bomber. They were to move in to attack a carrier.

A destroyer lookout picked up the "bomber" by radar 180 miles out from the carrier—100 miles out from the destroyer. The carrier launched two other Banshees to attack.

The attackers intercepted the "bomber" 80 miles out from the carrier—only 100 miles after it had been spotted—and shot it down.

To the admirals, the test proves: (1) The Banshee can get up and maneuver at 40,000 ft.; and (2) the B-36 can be spotted by radar—in time.

**Revenge**, of course, has a part in the Navy's challenge. The admirals still smart over loss of their supercarrier—halted by the decision that the B-36 offers more security.

But there is more than revenge at stake in the outcome of this duel—if it's held.

The Air Force has put the bulk of its eggs in the B-36 basket—on the theory that this land-based bomber can attack anywhere, anytime. The Air Force has contracted for 170 B-36's, has two groups (nearly 60 planes) in operation.

Symington has canceled \$200-million in orders for other planes to divert funds to B-36 production—including \$50-million earmarked for other type bombers.

This fund transfer is costly—some figure as

# WASHINGTON OUTLOOK (Continued)

high as \$80-million—because the Air Force has to settle for work partly done.

Yet rumblings persist that the B-36 isn't so good as the Air Force advertises.

You will be hearing more of this talk soon. Sen. Tydings' Armed Services Committee is poking into the whole Air Force 70-group program—its emphasis on strategic rather than tactical planes, as well as its procurement policies.

**THE MISSING-URANIUM STORY** was first "exposed" by a free-lance writer—William Bradford Huie—whose recent articles have mostly publicized air power.

For a year or more, Air Force brass has tried, behind the scenes, to convince Truman that the atom bomb should be transferred from custody of the Atomic Energy Commission to the fly-boys.

**A NEW SHIPPING CODE** to replace the Merchant Marine Act of 1936 has been worked out by shippers, the Maritime Commission, and the Navy. The proposal contains no relief for coastwise shipping, keeps present rules on government payment for defense features, such as speed.

House passage appears likely this year. But the Senate will wait until it completes its new probe of the entire U. S. transportation setup.

**FARM SUPPORTS**, for another year, are most likely to continue just about as they are now. That means:

(1) A 90%-of-parity floor for corn, wheat, cotton, tobacco, rice, peanuts, hogs, milk and butterfat, chickens, eggs.

(2) A floor between 60% and 90% of parity for all other so-called Steagall commodities—crops the government urged farmers to grow more of during the war. Potatoes are one example.

Congress isn't going to plunge into Agriculture Secretary Brannan's brand-new scheme for keeping farm income pegged to its wartime share of national income (BW-Apr. 16'49, p25).

But neither is Congress willing to let government price supports for politically sensitive farm products sag. This would happen if last year's Aiken-Hope law is allowed to go into operation.

So the best bet is for a "freeze" of things as they are. Georgia's friend of the farmer, Rep. Pace, has a bill that simply extends this year's supports to 1949-50 crops. Sen. Thomas (Okla.) and Rep. Cooley (N.C.), agriculture committee chairmen,

are leaning to Pace's bill. Only Aiken has announced he is against it.

**Acreage limits and marketing quotas** are sure to be imposed next year, however, on the basic crops—as a condition to getting government aid.

This will help some to keep costs down.

Brannan already is at work on preliminaries for setting limits for wheat; he must decide formally by July 15. Collection of data on corn and cotton will start soon.

And Cooley's House committee is at work modernizing the acreage formulas of the 1938 AAA act; a bill will be ready next month. The old formulas are obsolete now—because of increased yields, changed growing patterns, and the like.

**In the long run**, another extension of this year's high supports may do more to put over Brannan's income-parity ideas than Brannan himself has been able to do.

Why? With national income slipping and farm techniques improving, another year of high government supports will be expensive. Thus, the cost of Brannan's plan—next year—may not look so high.

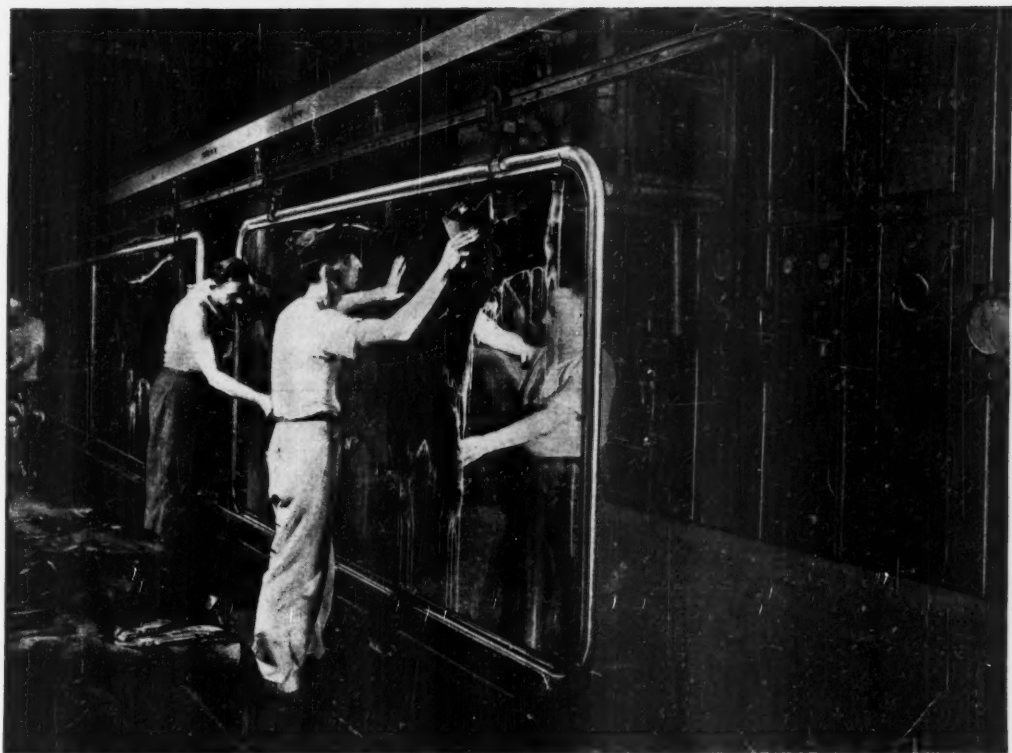
Also, by then there may be some experience data on the cash-subsidy feature of Brannan's plan—payment direct to farmers of the difference between market price and income parity.

Farm-minded congressmen are itching to try the cash-subsidy idea on one nonstorable commodity—to dip their toes in the water, so to speak. So the plan is to switch hogs from straight 90%-of-parity support to subsidy payments while the rest of the farm program stands still.

**COMPETITIVE BIDDING** for securities to finance natural-gas pipelines is being pushed by the Federal Power Commission. FPC lawyers are drafting legislation to give them power to pass on financing when they O.K. building a new line.

Chairman Cresser of the House Commerce Committee hopes to put the bill through this year. Truman likes the idea. So do such investment bankers as Otis and Halsey, Stuart.

**BRING YOUR PENNIES** with you when you come to Washington—after Aug. 1. After rejecting the idea three years in a row, Congress has voted the District of Columbia into the ranks of local governments with a sales tax.



Sides being pasted to glass plates at feed end of dryer. Automatic progressive conveying through dryer, where air motion, temperature and humidity are automatically controlled, assures quality leather.

## The Tanning and Leather Industry transforms the whole "Zoo" into goods for You

The list of hides processed to supply America with leather includes virtually every sort from elephant to frog skins.

The U. S. tanning industry converts millions of hides and skins into leather which is used in the manufacture of more than two billion dollars worth of footwear, gloves, handbags, upholstery and arrays of other leather products, mechanical and fancy.

Cattle, calves, goats and sheep and lambs contribute most of the tanner's raw material but pig, kangaroo, seal, lizard, ostrich, snake and a host of other creatures swell the total.

Men in the tanning and leather industry have pioneered many innovations in equipment and methods.

They have made unhairing and fleshing machines that perform with remarkable speed and efficiency . . . they have developed machines which squeeze, stretch and press the leather to eliminate wrinkles and other irregularities . . . machines that buff skins to remove scars and scratches . . . machines that split hides into plies of amazingly uniform thickness . . . machines that dye and apply finish giving leather its uniform color and beauty.

For years the technical staffs of International Nickel have worked hand-in-hand with engineers, designers, metallurgists, research and production men in the leather and tanning industry on a wide range of metal problems. To this extent Inco has contributed to the continuing improvements in performance of tanning and leather working equipment.

Through this and comparable experience gained in technical service throughout industry, International Nickel has accumulated a fund of useful information on the properties, treatment, fabrications and performance of engineering alloy steels, stainless steels, cast irons, brasses, bronzes, nickel silver, cupronickel and other alloys containing nickel. This information is yours for the asking. Write for "List A" of available publications.



**THE INTERNATIONAL NICKEL COMPANY, INC.** NEW YORK 5, N. Y.



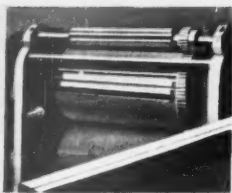
## G-E SILICONES PUT A RAINCOAT ON AN ELECTRON TUBE



G-E silicone mold release agents cut reject costs in rubber plants.



Die casters say G-E silicone mold lubricants provide unique advantages.



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### How can G-E Silicones help you?

More manufacturers are finding that General Electric silicones can cut their production costs or improve the characteristics of their products.

Here are a few applications of these chemically-inert, heat- and -cold-resistant materials: **silicone rubber** for gaskets and insulation; **silicone oils** for mold lubricants, hydraulic systems; **silicone dielectric compounds**; **silicone resins**

for high-temperature electrical insulation and industrial finishes; **silicone water repellents** (DRI-FILM); **silicone gums and compounds** for rubber manufacturers.

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PRICE CUTS to spur buying are one of the big factors behind . . .

## What Worries Businessmen

Chief problem is how to beat the breakeven point—show a profit when prices must come down, yet costs stay sticky. Price resistance itself is a headache; so is Washington.

The doodles that executives draw on tablecloths these days are apt to be inspired by breakeven points.

• **No. 1 Worry**—No other subject bothers them so much. Last week management men across the nation were talking to BUSINESS WEEK reporters like this:

"With our thousands of workers demanding more and more in the way of conveniences to keep them happy, and with our customers clamoring for price reductions, it's obvious that we are running into stormy weather ahead to maintain our profit margins."

• **New Climate**—What all such talk shows is this: During the last three months, there has been a basic change in the businessman's mental climate.

As recently as February (BW—Feb. 1949, p24) the No. 1 worry was: Are we moving into a recession? That's no longer the main ulcer-inducer. For the businessman knows the downturn is

plainly here. So the problem now is to chop costs, keep up volume, rejigger prices, and rescue as much profit as possible.

• **No. 2—Washington**—While no other problem ranks alongside breakevens, Washington is causing its fair share of headaches. The longer Congress stays in session, the uneasier businessmen get. They figure it this way: If unemployment gets much bigger, Congress will surely be tempted to spend the U. S. out of a slump; somebody will have to foot the bill; and that could mean more taxes.

Moreover, the average businessman hardly trusts Truman. The feeling is that the President will lay another foundation stone for the welfare state whenever Congress will let him.

• **No. 3—Price Resistance**—Labor, the No. 3 worry previously, has slipped to the No. 4 spot. The third biggest worry today is resistance to prices. This balk-

ness has developed at all levels of manufacturing and distribution. And it's the kind of disease that feeds on itself and becomes more prevalent.

For instance, a hard goods maker in the Midwest notes that his customers are slowing down on orders, hoping he will cut prices. So he has got the bug, too: He won't build the new plant he needs until the contractor gets the price down.

Just how does this fever burn itself out? Businessmen hope that eventually inventories will get so low that buying will have to start again. But when will that be?

• **No. 4—Labor**—Though labor problems aren't so pressing as they were a couple of months ago, they still rank fourth on the list of worries. Here's why: (1) Wage hikes now could mean higher costs and prices—and thus still more customer resistance; and (2) strikes in major industries—autos, for example—would be highly deflationary.

• **No. 5—Personnel**—Personnel problems rank No. 5. To be sure, nobody has any trouble getting help any more. But there's a common complaint throughout industry that the quality of salesmen is poor. And employers in the service industries grumble that their workers "just don't care."

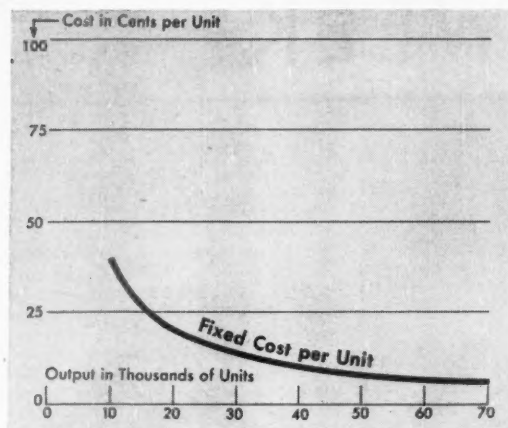
• **No. 6—Competition**—The No. 6 worry is the return of competition. The marginal people are wondering how long they can hang on. Many know they have to mechanize—but where is the money coming from? And the big fellows worry that the marginal people will slash prices ruinously to get rid of stocks.

But all in all, these problems are minor compared to the breakeven-point worry. And the insidious thing about that one is how do you compute a breakeven point? As one large eastern manufacturer puts it:

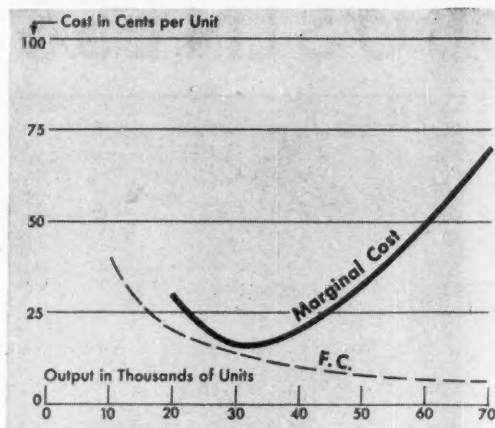
"We know that prices are going down, but we want to know how much. We hate to issue a series of price reductions until we know how far the other fellows are going, and at what levels prices will taper off. We'd like to know in what brackets to make cuts. It takes considerable study, conferences, and the spending of money. If there is an easier way of finding out, we'd like to know."

• **Starter**—Obviously, there is no easy way. But for a starter, readers should note what appears on the following pages—20, 21, and 22—of this issue of BUSINESS WEEK.

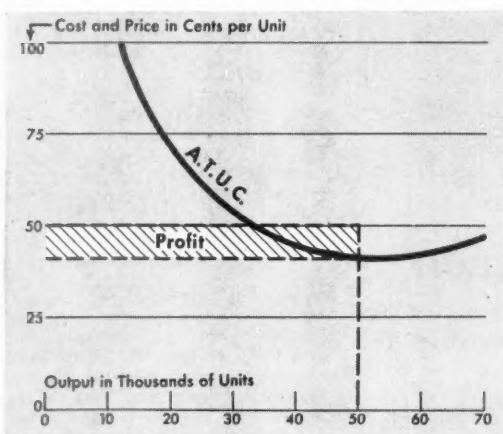
# How Cost, Volume, and Price Determine Your Br



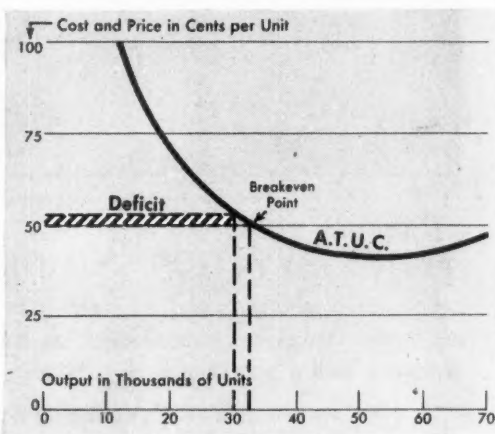
1 Figure your fixed costs per unit of output at various production rates. Fixed costs per unit will drop as output rises



2 Figure the marginal cost per unit. This is the extra, out-of-pocket cost (labor, materials, etc.) to produce one more unit



5 Say that at a price of 50¢ you can sell 50,000 units. Then your profit is equal to the shaded area (the number of units multiplied by the difference between cost and price)



6 If demand falls off and you can sell only 30,000 units at a price of 50¢, you run a deficit. Your breakeven point is around 32,000 units (the place where average total unit cost equals price)

## Management Cuts Costs, Pushes Sales to St

Executives struggling with the problem say that it can be licked. Some find breakeven point has slipped down with business.

"There are six different ways of defining the breakeven point," says a New England manufacturer, "but they all come to the same thing: It's a pain in the neck."

Few businessmen would quarrel with this definition. The breakeven point is a tough subject to deal with.

• **Cheer**—But companies that actually have come to grips with the problem of

high breakeven points are surprisingly cheerful about it. This week **BUSINESS WEEK** reporters in various parts of the country talked with a selected list of manufacturers whose sales have dropped close to the breakeven level or under it. All—even the ones with red ink on their books—think they can get their troubles straightened out by the end of the year.

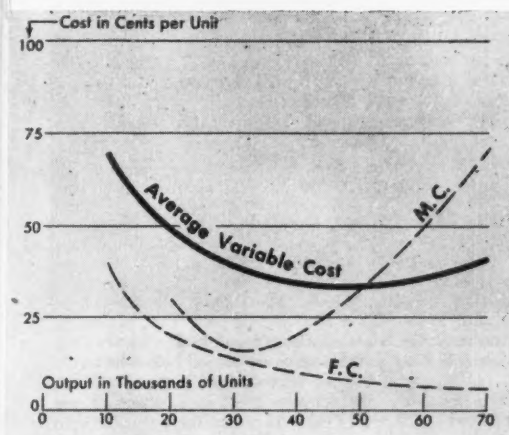
"I have pulled this business through

hair a dozen depressions in my life," says E. S. Pillsbury, president of Century Electric Co., St. Louis, since 1913. "And we expect to pull it through any more that come along."

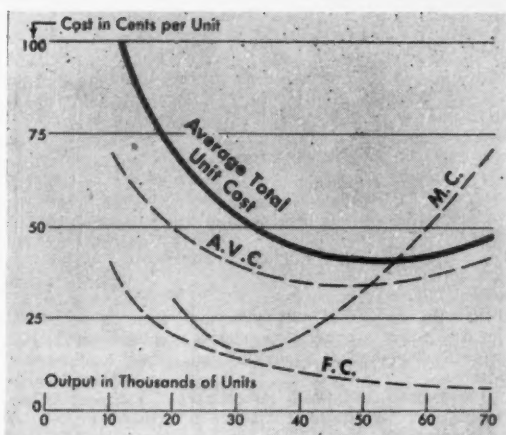
"Just give me until December," promises an oldtimer in the machinery business. "Rome wasn't built in a day. And you can bet it wasn't built with seniority rules or long-term contracts with suppliers. But just give me another six months, and we'll be all right."

• **Two Battles**—Most companies with breakeven trouble have started intensive

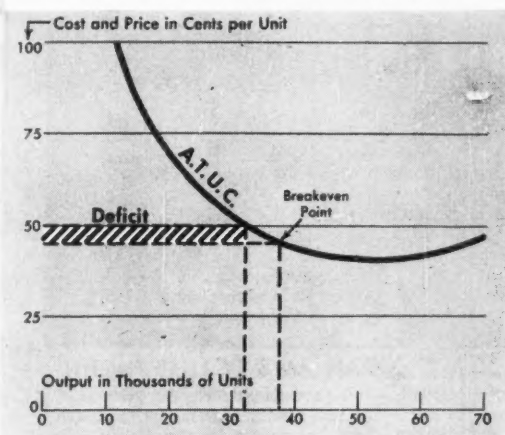
# Breakeven Point



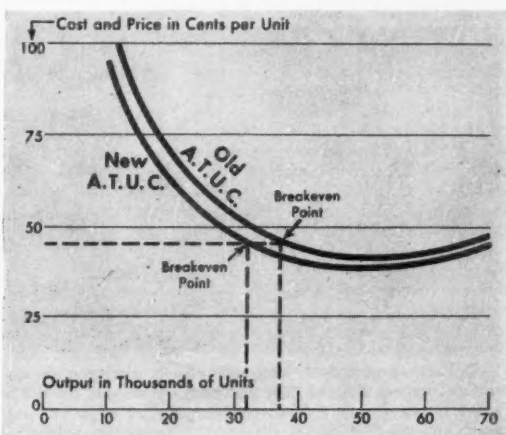
3 Figure the average variable cost. This is the average of the marginal costs of all the units produced up to any point



4 Add variable costs to fixed costs to get average total unit cost at each rate of output. This is what makes or breaks you



7 Suppose you can boost your sales to 32,000 units by cutting price to 45¢. You still won't break even, because at the new price you will have a new break-even point—38,000 units



8 But if you can bring average total unit cost down to 45¢ (at sales of 32,000 units), or get sales up to 38,000 units at a price of 45¢, then you will break even

## Stay in Black

campaigns to bring down costs—both overhead and production expenses. And most of them have launched new sales drives in an effort to get more volume.

This two-pronged approach underlines a highly important fact: The break-even point isn't a single problem for management; it's a whole group of problems. Each company has a choice of several different ways, or combinations of ways, of tackling it.

And the break-even point of a company isn't a fixed rate of operations, as unchangeable as a location on a map.

It is a relationship between costs and sales. Within limits, the company management can change it. And the more time the management has, the wider the limits are.

• **Combination**—Theoretically, there is a different break-even point for every possible combination of costs, prices, and sales (charts). The problem for management is to work out the combination that will give the biggest possible profit or the smallest possible loss at any particular time.

For example, if you have heavy fixed costs, you probably have a high break-even point. You need to spread that overhead over a large number of units

to bring it down. If you can't spread it, then your cost per unit is likely to lick you. This is what your accountant means when he tells you that you have "unabsorbed overhead."

• **Remedy No. 1**—Perhaps you can get more business and spread your fixed costs by cutting prices. But lowering the price narrows the margin on each unit that is available to cover overhead. Hence, your break-even point at the new price will be higher, in terms of needed volume, than it was at the old one. You won't mind that if your unit sales have increased enough to offset it. If they haven't, you may lose more money than you would have at the



higher price and lower rate of operation.

• **Remedy No. 2**—Maybe you can get more business by putting more money into a sales drive. This will raise your overhead, and your breakeven point will go up. But you may get enough extra volume to put you into the black anyhow.

• **Remedy No. 3**—Sometimes you can lower the breakeven point by increasing fixed costs. Suppose, for instance, that you put in labor-saving machinery on a big scale. Your fixed costs go up, but your labor costs per unit should come down. At a given price, you have a bigger margin available out of each sales dollar to apply to your overhead.

• **The Theory**—You can trace out all these situations on the charts by moving the cost curves around, or by taking different combinations of output and price.

These charts are drawn to put special emphasis on the effects of changes in unit prices and costs. They are borrowed from theoretical economics, and they are not the diagrams that accountants ordinarily use in a breakeven analysis. In the commonest kind of breakeven chart, you simply plot total costs against total sales; your breakeven point then is the place where the lines cross. This shows the relation of costs and volume. But it doesn't show the effect of price changes.

• **Higher Now**—Businessmen pretty generally agree that their breakeven points are far higher now than they were before the war. There are several reasons for this:

(1) Fixed costs are higher because manufacturers have invested heavily in new equipment.

(2) High wages and material costs leave a smaller margin out of the sales dollar to apply to overhead.

(3) Extra expenses of one sort or another slipped into the cost structure during the days when orders were pouring in.

• **Relief**—But in this spring's business dip, several companies have been pleasantly surprised to find their breakeven point a good deal lower than they thought it was. When the rate of operations goes down, repair and maintenance costs drop. Workers are likely to be more efficient. Plant managers can take obsolete machines out of production.

For example, a New York valve manufacturer says that a year ago he thought his breakeven point was somewhere around 80% of capacity. He's already down to that point now. And he still is showing a profit. Among other things, he says he has saved a lot of money by having an adequate inventory of finished items on hand. He can fill a big order with a single shipment now. A year or so ago, he had to fill it in instalments, rushing off a small lot as soon

as it was finished. That meant extra handling and extra paperwork.

• **Not Automatic**—However, you can't take it for granted that your breakeven point will come down automatically. Most companies have found that it takes careful planning and hardboiled cost-cutting to keep income and expenses in balance. And many have discovered that it takes time to pull the breakeven point down, even when you know where you want to do your cost-cutting.

Take McQuay-Norris Mfg. Co., of St. Louis, for example. McQuay-Norris makes automobile pistons, piston rings, bearings, water pumps, and the like. In the first quarter of 1949, its sales were a little over \$4-million, against \$4.9-million in the first quarter last year. Profit for the period shrank to \$72,000, against \$289,000 last year.

President Arthur G. Drefs says McQuay-Norris is suffering from "the opposite of filling the pipelines." Automotive wholesalers, its major customers, are liquidating their inventories. One more or less typical wholesaler has cut his purchases about 12% below last year even though his own sales are running 4% ahead.

During the first quarter, this drop in business hit McQuay-Norris hard, mainly because "you don't demobilize an organization at the start of your selling season." Since Apr. 1, the company has concentrated on cutting expenses. It has been letting off some of its non-productive employees (foremen, office help, and the like), weeding out marginal salesmen, and working off high-priced raw material inventories. By July 1, Drefs predicts, the company will be back on a normal profit basis.

• **"Painful" Problem**—Evans Products Co., Detroit, has been up against a breakeven problem for more than a year now. In the first quarter of 1948, sales were \$4.6-million, and the company ran a deficit of \$56,000. By the first quarter this year, sales had slid down to \$3.6-million; the deficit was \$184,000. Much of the drop has been in the heating and appliance division, and in the company's plywood operations.

Edward S. Evans, Jr., president, says that cutting costs is a painful business, but it can be done. The company has been whittling away at supervisory and indirect-labor costs. It even made a study of the number of telephones it needed and discovered it could take a slice out of its phone bill.

• **Consolidating Plants**—American Stove Co. hopes to bring down its breakeven point about 12% by consolidating two factories, one at Harvey, Ill., and the other at St. Louis. Its sales have dropped from almost \$7-million in the first quarter of 1948 to \$3.3-million this year. Last year, it had a first-quarter

profit of \$358,000. This year it ran a deficit of \$608,000.

President Arthur Stockstrom says his breakeven point probably always will be higher than it was before the war. But he doesn't think it is inflexible. By closing out the Harvey factory and moving some equipment to St. Louis, he will cut overhead and administrative expenses.

• **Drive for Sales**—Cost-cutting is only part of the answer to the problem, though. Another approach is to put more steam into selling.

American Stove is launching a new campaign to get "better education" of its dealer-salesmen. McQuay-Norris is replacing unproductive salesmen.

A hard-pressed New York machinery manufacturer knocked \$5,000 a month off his executive payroll before he would cut his sales budget, because: "That's the last place to do your cutting. If you trim that too much, then you lose your volume, and all your cheese-paring hasn't done you a bit of good."

To some companies, a bigger sales push looks like the only real answer to the breakeven problem. In Memphis, E. L. Bruce, Jr., president of E. L. Bruce Co., maker of hardwood flooring, sees no big opportunity to cut costs. His belief: "The breakeven point will remain permanently high because of the resistance of labor and of transportation facilities against taking any reduction."

Bruce has stepped up his advertising budget for this year. And he has increased his sales force. During the war, many salesmen came back to headquarters and became lumber buyers. Now all of them are back in the field. As to the future, Bruce says: "We are not worried, but we are cautious."

## PAN AM'S DE LUXE FLIGHTS

If transatlantic liners can offer super-de luxe accommodations for passengers who are willing to pay for it, why shouldn't transatlantic airlines do the same thing? No reason at all, Pan American Airways has decided.

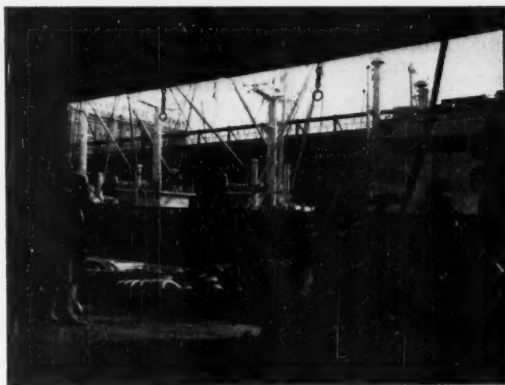
So on June 10, the 10th anniversary of Pan Am's first regular service to England, the carrier will inaugurate once-a-week, extra-fare flights between New York and London.

Boeing Stratocruisers will be used. But they will carry only 39 passengers, instead of the 53 carried on Pan Am's regular daily Stratocruiser flights. The extra space between seats will make possible table service for meals. And the seats will convert at night into "sleep-erettes."

Special services will include choice of menus, cocktails and wine with meals, breakfast in bed—and corsages for all the women.

The extra charge will be \$10 above the \$350 one-way fare.





**1** Watching ship-loading through binoculars, Commerce Dept. agent checks to see that no scarce merchandise, not licensed for export, gets aboard ship at loading dock



**2** At frequent waterfront confabs, customs inspectors and export examiners talk over ways of fighting "smuggling out"—under present laws as troublesome as "smuggling in"

## Export Smuggling Keeps "C-Men" Busy



**3** Aboard ship, enforcement officer from Office of International Trade confers with captain, checks papers



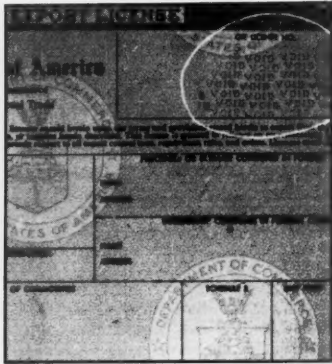
**4** Export declarations are carefully checked against ship manifests to prevent switches in goods or destinations



**5** Word of any suspicious movements is flashed at once to inspectors at shipping points, including airports



**6** Thorough inspection is often necessary. This shipment, listed as one kind of wire, turned out to be another kind



**7** As additional precaution, export licenses are printed on safety paper, so that changes or erasures show up at once

# Cotton Trouble

Big plantings, lower use indicate huge surplus later this year. Exports are the one strong spot.

Cotton planting for 1949 had just about wound up this week. And, with the seed in the ground, the cotton trade was on the anxious seat.

• **Consumption Off**—Biggest problem is the drop in cotton consumption (chart). Use in April was only 597,031 bales. That might not have been too bad by prewar standards, but it was the smallest since June, 1940. In April, 1948, the figure was 829,960.

Now the industry is beginning to wonder whether cotton consumption in the crop year that ends July 31 will total as much as 8-million bales. That, too, is a lot of cotton by prewar standards; but it looks skimpy compared to wartime and postwar use of 9-million and up.

• **Bigger Plantings**—Everybody thinks that this year's acreage will be big—bigger by a good bit than last year's 23-million planted acres. It is hardly expected that yield will match last year's record of 313 lb. to the acre. Yet, even at a lower yield, the increased acreage might bring as much as or more than last year's very large crop of 14,868,000 bales.

• **Result: Surplus**—You don't have to have very many more background figures to get an idea of the coming cotton surplus.

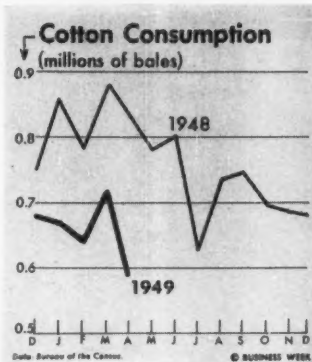
The surplus doesn't worry the cotton South—yet. This is the last year that planters can be sure of government support of cotton prices at 92½¢ of parity. They figure to get theirs while the getting is good. That is why they have increased plantings—some guesses run to a gain of as much as 15% over 1948. Official estimates will be out around the first of July.

But Washington has its surplus pains. One reason was the large 1948 crop. The second is lower 1948-49 mill takings. And the third is the prospect of another whopping crop this year.

• **Heavier Exports**—The one bright spot is exports. Aided by the Marshall Plan and the Army's subsidized purchases for Germany and Japan, these ran more than 3½-million bales from last Aug. 1 through early May, against about 1½-million in the like 1948 period.

Thus, the trade can count on exports of well over 4-million bales for the 1948-49 season. But even adding that onto the estimated 8-million bales for home consumption leaves total disappearance nearly 3-million bales less than the 1948 crop.

And, considering that we entered the



1948-49 cotton season with more than 3-million bales of old cotton on hand, the carryover this coming Aug. 1 stands to be about 6-million bales. If another 2- or 3-million bales comes out of this year's harvest, the surplus would begin to climb toward prewar magnitude, when the peak was approximately 12-million bales.

• **Loans to Rescue**—The government has been obliged to support prices by placing 5.3-million bales of 1948 cotton under loan. True, growers have repossessed 950,000 bales. Nevertheless, the government still has a lien on some 4,350,000 bales—about \$650-million worth.

Taking that much cotton off the market has kept the price generally above the loan level this year. This gave the farmer an incentive to redeem cotton placed under loan. And such redemptions, in turn, have prevented the squeeze on supplies that some mill men had feared would come toward the end of the season—even though their needs were off sharply from a year ago.

## Price Competition In Fire Insurance

For the past five years the once-placid fire-insurance business has been in a hubbub—ever since the Supreme Court, in 1944, reversed a 75-year-old ruling and decided that insurance is subject to the anti-trust laws (BW—Jun. 10'44, p18).

• **Lower Rates**—The latest break with tradition came last week. The Pennsylvania insurance department O.K.'d an application by the Insurance Co. of North America to cut some of its rates on fire insurance in "excepted" areas by 15%.

Although the North America didn't say so directly, the cut came out of its agents' commissions. And the new rates represent price competition by a "bureau" company against other "bureau" companies. That's very unusual. Companies which are members of rate-

setting bureaus usually follow all the "bureau" rates.

• **"Excepted" Areas**—Here's why the North America was able to cut its agents' commissions: "Excepted" areas, in insurance parlance, are those metropolitan districts where insurance agents get higher commissions than agents elsewhere in the U.S. The custom is an old one. It was based on the theory that city agents, with their bigger staffs, were able to perform some of the functions of the companies' home offices.

The rate cuts are in Philadelphia and its suburban counties, and in the Pittsburgh area. Office buildings, stores, and some residences are affected.

• **Reaction**—You might not expect it, but the North America's agents are philosophical about the commission cut. Reason: The big rate slash will enable them to do a lot more business, unless other bureau companies follow suit.

At this point, the other bureau companies are not too happy. They expected the Pennsylvania department to turn the rate-cut application down.

## General Motors Cuts Prices Second Time

For the second time in three months, General Motors has cut car and truck prices. And for the second time, the cut is about the same—ranging from \$10 to \$40 (in a few places, the February whack was as much as \$150, BW—Mar. 5'49, p19).

Frigidaire, too, cut prices—and for the second time in a fortnight. Reductions of \$5 to \$10 on household refrigerators were piled onto others of \$10 to \$13 earlier in the month.

Adjusting prices in line with wages (page 98) is evidently now a fixed G.M. policy. Will it force other carmakers to follow suit?

• **Uncertainty**—It might, thinks Detroit, but you can't be sure. When a flock of companies cut prices earlier this spring, the idea was to put out customer bait. Buyers were standing off, waiting. Had prices not been eased, sales might have been lost. Today, say some of the sales experts, the novelty of this tactic has worn thinner, and the need for following G.M. isn't so urgent.

That further cuts are coming at some future time seems inevitable. But they will hinge mainly on lower production costs. They won't be just a psychological move.

• **Labor Situation**—But in order to make that kind of cut, the auto companies first have to get their wage bill straightened out. The unions are ready to drive for pensions, more pay, other benefits.

So with all that ahead of them, the auto makers hate to get out on a limb by making price decisions now.

# A Bigger Inch

**Transcontinental starts building its mammoth gas line from Texas to the Northeast. It'll be ready in 1951.**

A ceremonial spade broke dusty ground in Laurel, Miss., last week. It marked the start of a 2,250-mile natural gas pipeline that will hook up gas in Texas and Louisiana with utilities in New York, New Jersey, and Philadelphia.

• **Long Stretch**—This newcomer to the growing network of natural gas pipelines is the project of Transcontinental Gas Pipe Line Corp., Houston, Texas. When completed—early in 1951—the line will stretch from the lower Rio Grande Valley to 132nd St., New York City. It's supposed to deliver 340-million cu. ft. per day at the start. Later expansions will up volume to 500-million cu. ft. Total cost: about \$190-million.

Nine utility companies in the New York and Philadelphia areas will use gas from the new line. Biggest buyer: Consolidated Edison Co. of New York. It will get 100-million cu. ft. per day—almost a third of the line's output.

• **Dual Use**—The utility companies will use the gas both as a substitute for oil in manufacturing gas and as fuel for power generation. Claude A. Williams, president of Transcontinental, figures his pipeline will save distributors \$25- to \$30-million yearly.

But the utilities warn customers not to expect these savings to be passed down to them right off. The cost of converting equipment to handle the natural gas will eat up most of the savings for a year at least.

• **History**—Transcontinental began planning its line about three years ago. The company was formed originally as Transcontinental Gas Pipeline Co. to bid on War Assets Administration's Big Inch and Little Big Inch (BW—Aug. 10 '46, p19). When its \$85-million cash bid was topped by Texas Eastern Transmission Corp., Transcontinental cooked up a plan for a new line of 30-in. diameter—bigger than the Big Inch.

But in the power industry, you can't just decide to build a line, raise the money, then lay the pipe. Before the first foot of trench is dug, you have to prove your case before the Federal Power Commission. Is there enough capital available? Is there enough demand? Is there enough natural gas reserve to meet that demand for a specified period?

• **Hearings**—Transcontinental had nine months of hearings before FPC. That filled over 9,000 pages of testimony, re-

quired 200 witnesses. Cost to Transcontinental: \$9-million.

Another big problem Transcontinental had to lick was where to get 10-million ft. of steel pipe when pipe was in critical shortage.

It found a supplier—and picked up a whopping freight bill at the same time. The Kaiser Co. has contracted to furnish Transcontinental 500,000 tons of steel plate over a 24-month period from its Fontana (Calif.) mill. And Columbia Steel Co. (U. S. Steel subsidiary) has taken on the roll-and-weld fabricating job for the 30-in. and 26-in. main-line pipe.

Transcontinental figures that the rail bill for getting the pipe from coast to coast will be about \$20-million. That's

roughly a third of the purchase price of the pipe.

• **Costs**—Costs like these rapidly build up to the \$190-million total it will take to finish the line. To cover the bill, president Williams stumped financial districts. He arranged for sale of \$143,000,000 of first mortgage bonds to a group of 18 New York insurance companies. The remainder he got from short-term notes and sale of common stock.

With the plan all neatly down on paper, Williams expansively predicts that the first gas from the line will be delivered in New York by September, 1950. And, as one pipelayer wryly remarked, "All we have to do now is go to work."



**Wine-Cask Tourist Camp Proves . . .**



**. . . Square Pegs**

Tourists at "Cask Villa," a camp just outside Vermillion, Ohio, live in wine barrels. Formerly 6,000-gal. casks, they're now "single" and "double" cabins. Singles contain a double bed, table with benches, hot-plate,



**. . . Can Fit Round Holes**

and other furnishings. Former camp-owner William O'Neill purchased the 21 casks from a Cleveland winery, built additions on to make cottages. The barrel-house camp is now owned by R. S. Barr.

# Uniform Commercial Code

Drafters have put together a single code covering major phases of commercial deals. Draft will go to Congress and the states for approval next fall. Big saving to U. S. businessmen seen.

A tremendous piece of legal work was wrapped up in Washington last week. It can save businessmen much worry, time, and money in years to come.

• **Uniform Code**—It is a uniform code of commercial law. Hundreds of lawyers have been working on it for the past four years under the direction of the American Law Institute and the National Conference of Commissioners on Uniform State Laws. Now they have finished their part of the job.

The code covers every major phase of commercial transactions, from sale to final payment. It applies whether the traffic is in goods, commercial paper, stock or other securities.

Money for the drafting project came from a \$250,000 grant from the Falk Foundation of Pittsburgh and contributions of as much again by about 100

interested business concerns and individuals.

The code draft will come up before Congress and each of the state legislatures after a meeting of its sponsoring organizations in St. Louis this September.

• **Culmination**—The code is the high point of a series of uniform laws on commercial matters drafted over the years, and enacted in many states. The Uniform Negotiable Instruments Act was presented to the states in 1896; it has since become law in every state. Several other uniform laws—on partnerships, stock transfers, warehouse receipts, and other special subjects—have been passed in many states.

• **Inadequate**—But most of these laws are more than 30 years old. Not all the states have enacted some of them. And

the laws that have been passed leave big gaps that ought to be covered. For instance, there's no uniform legal definition in state laws of such common business terms as f.o.b., f.a.s., and c.i.f. That leaves plenty of room for misunderstandings between businessmen in different states. Except for bills of lading, there is no federal law on commercial transactions in interstate commerce.

• **Foreign Trade**—Again, the U. S. law on foreign commercial and financial dealings has never been systematically organized in one volume. That handicaps our foreign trade; foreign businessmen can't get a statement on our laws without a lot of digging. The new code helps them to find out their legal rights in an overseas deal.

## Studebaker Gets Aboard With Automatic Drive

The auto industry will have its sixth automatic transmission soon. Borg-Warner Corp. said last week that it would supply Studebaker with a new automatic drive—presumably of the torque-converter type. The announcement followed by just a couple of weeks Packard's unveiling of its new Ultra-matic transmission (BW-Apr. 30/49, p31).

Borg-Warner's Detroit Gear Division developed the Studebaker transmission. It is hurrying the tooling for it so that production can get started before the end of the year.

• **Why Detroit?**—Detroit is particularly intrigued by the fact that B.W. will make the device in Detroit, rather than in its other facilities nearer Studebaker's home in South Bend. The general conclusion in the Motor City is that Detroit Gear has some other sales prospect in mind.

Auto men recall that the division closed a deal more than a year ago to supply Ford with an automatic. This arrangement was canceled when Ford looked the situation over again, and changed its mind. Since then, however, Detroit Gear has continued discussions with Ford—and with others as well.

• **Other Changes**—The new transmission will presumably appear on the 1950 Studebakers. Other changes are anticipated, too, when these new models appear. It's understood that the South Bend manufacturer has given releases to tool-and-die and machinery companies for new equipment for a redesigned body for 1950.

Studebaker's advanced styling was a dominant influence in developing the postwar automotive look. It has not been changed significantly since 1946. Auto people aren't clear as to just what the company is planning for its 1950 models—but they're confident that it will be interesting.

## 33-Year-Old Railroad President

A new management has been sweeping the cobwebs out of the Chicago Great Western R.R. for several months. Last week the group of investors that installed the new management handed the broom to William N. Deramus III.

Deramus is 33. His election to head the Chicago Great Western makes him the country's youngest railroad president. He has grown up in the business—and is quick to acknowledge the reason: His father, W. N. Deramus, is president of the Kansas City Southern Ry.

• **New Interests**—Here's what led up to young Deramus' new job: In 1947 a group of Kansas City men, headed by the elder Deramus, took the lead in buying stock of the Chicago Great Western. Their aim: to get control of the road into the hands of the people in the area it serves. The 1,500-mile line carries mostly freight between Chicago, St. Paul, Omaha, and Kansas City.

Last Oct. 19 the new group of investors installed Grant Stauffer of Kansas City as president of the Chicago Great Western. He never really got a firm grip on the throttle. He became ill soon after his election, did not recover, died Mar. 31, 1949.

Stauffer brought young Deramus to Chicago as his assistant. The newcomer had been with the Kansas City Southern since the war. Before his Army service (he worked on the railroad in Burma) he was with the Wabash R.R. in St.



William N. Deramus III

Louis. He is a graduate of the University of Michigan and Harvard Law School.

• **Job Ahead**—Deramus has a real job to do at the Chicago Great Western. He has to funnel money into maintenance to catch up with deferred work. (One director calls the condition of the roadway "scandalous.") There's equipment to buy, too. Meanwhile, preferred stockholders are demanding dividends; they haven't had any since 1946.





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As easy to handle as a household vacuum cleaner, yet this Finnell is powerful . . . fast . . . and thorough. Mounts a G. E. Drip-Proof Capacitor Motor . . . is equipped with Timken Bearings. And the ruggedly constructed worm drive, housed in an extra-capacity leak-proof gear case, lubricated for 1500 hours, assures smooth, noiseless performance. A precision product throughout. Three sizes: 13, 15, and 18-inch brush diameter.

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Fibre Brushes



Polishing Pad



Steel-Wool Pad



Sanding Disc



With Water Tank and  
Vacuum for Rug Scrubbing

## BUSINESS BRIEFS

FTC lost a pricing case this week for a change. It had charged tag-manufacturers with price-fixing through use of an industrywide price list. But the First Circuit Court of Appeals in Boston found that 25% of tag sales were "off-list"; it ruled that was enough to disprove FTC's contention that there was "substantial uniformity of prices."

Rheem Mfg. Co. has sold its idle Birmingham (Ala.) plant to a group of four Cincinnati real estate men for \$550,000. They are forming a new corporation, Birmingham Industries, Inc., to take over the plant—and possibly other southern industrial properties. They hope to lease the Rheem plant to an auto company, which could use the rolled steel that's made in Birmingham.

AC Spark Plug Division of G.M. has acquired a new plant in Milwaukee. It will make "bombing navigational instruments" for the Air Force. Employment is now 400; it will be boosted substantially.

Two more appliance price cuts: Detroit-Michigan Stove Co. has a new line that will sell 12% to 20% below present lines—"to meet price resistance head-on," says John A. Fry, president. Kelvinator has reduced most of its 1949 line by \$10.

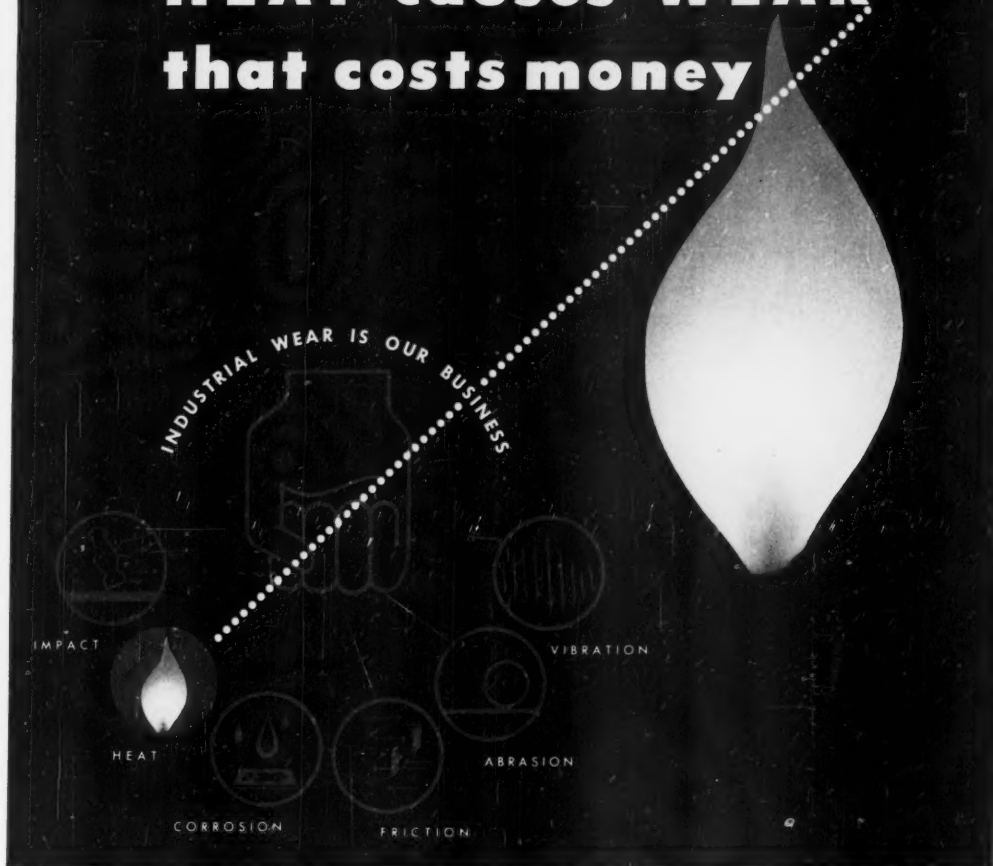
"Company towns" continue on the way out (BW-Oct.16'48,p46). Now Textron, Inc., has sold 76 houses around its Louise Mill, at Charlotte, N. C., to employee-tenants. Firestone Textiles, Inc., of Gastonia, N. C., subsidiary of the Akron rubber company, will offer 525 tenant houses for sale. Tenants will have first crack, next option goes to other employees.

All-metal construction is gradually supplanting fabric covering in personal airplanes. Cessna is the fifth to switch over completely. Others: Beech, Ryan, Temco, Luscombe. Piper is still the leading advocate of fabric.

Eversharp's management fight (BW-May21'49,p105) has resulted in Martin L. Straus II going out as chairman. He remains a member of the board. Straus says he thinks the directors' meeting this week that deposed him was illegal.

Government employment—nonfederal—is at a record high, says the Census Bureau. The figure of 3,994,000 employed by state and local governments is almost double the number working for the federal government.

# HEAT causes WEAR that costs money



## AMERICAN BRAKE SHOE may be able to help you with your heatwear problem

Heat is one of the most serious causes of expensive replacements and shutdowns for repairs. In many manufacturing operations, wear caused by heat may be costing more than necessary.

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# PRODUCTION



COLD-CATHODE LIGHTING, seeking industrial market, is waging a . . .

## Fluorescent Light Battle

Makers of cold-cathode tubes are trying hard to crack the field held by manufacturers of hot-cathode lights. Invaders bank on new designs and standards to spread use.

A new kind of synthetic daylight has set West Coast merchandisers and television people blinking.

• **Source**—The "daylight" comes from a fluorescent tube developed by Luminad Corp., San Francisco. It had its debut last week in an installation at the new Navy Officers' Club at San Diego. The tube balances seven visible colors of the spectrum, produces what the makers call "subdued sunshine."

Luminad intends to promote the tube for displays, for television studios, and for color-movie making. Its big advantage is that it throws out plenty of light with a minimum of heat and glare. But installation costs run about three times as much as those for conventional cathode-tube lights.

• **Step**—The new tube is an important step in a field that most consumers know little about: cold-cathode lighting. Cold-cathode fluorescent lamps operate on the same basic principle as do the more common hot-cathode tubes. But they differ radically in the way their light starts up.

• **Workings**—In all fluorescent lamps a flow of electrons through a gas produces ultraviolet radiations inside the tube. These radiations cause the coating on the tube to fluoresce and thus make light. The electrons in hot-cathode lamps start to flow when electric cur-

rent heats up a tiny tungsten coil to 950C. The heat causes the electrons to "boil and jump off" the coil and start the lighting action. In cold-cathode lamps, a very high voltage passing through a chunk of metal drives off the electrons without any heating buildup.

Both hot- and cold-cathode lamps have to have transformers. The hot type needs them to step up or step down 120-v. circuits to meet the requirements of the particular lamp; cold lamps rely on transformers to build up voltage to a range of 600v.-15,000v. per circuit that they use to operate.

• **Market Fight**—Competition between the two types of lamps doesn't amount to much in the smaller-wattage sizes. The hot-cathode has this market; the cold-cathode type has inefficiencies for general lighting purposes if the lamp is much shorter than 6 ft. The fight centers around the long, higher-wattage lamps and Slimline models. (But in these sizes, the hot-cathode tubes light up instantly, too.)

Backers of cold-cathode lamps have done a good job talking up their product. Cold-cathode has become a magic name. But despite the interest they have stirred up, most makers of cold-cathode lamps have had tough sledding lately. Big tube manufacturers have concentrated on hot-cathode lamps and

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1. Figures on labor stability show that the nation lost .4% of available time through work stoppages in 1948. Compared to the national average, New York State's record is ( ) twice as good, ( ) about average, ( ) half as good?
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East Aurora  
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Elmira  
Elmira Heights  
Endicott  
Evans Mills  
Fulton  
Holley  
Horseheads

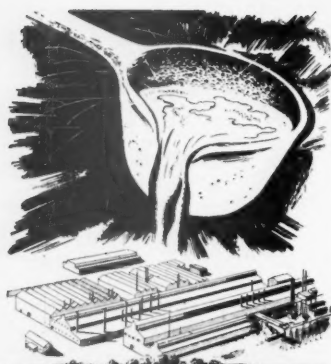
Jamestown  
Johnson City  
Lackawanna  
Lockport  
Malone  
Medina  
Middleport  
Niagara Falls  
North Tonawanda  
Nyack  
Oswego  
Palmyra  
Phoenix  
Rochester  
Snyder  
Sodus  
Tonawanda  
Troy  
Watertown  
Watkins Glen  
Webster  
Westfield  
Williamsville  
Wilson

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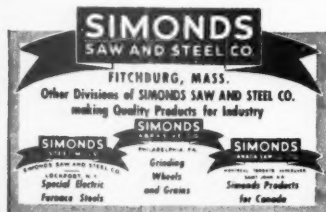


**R + R = RQ**

...there's the formula  
for  
**SIMONDS STEEL**  
...for  
**SIMONDS TOOLS**



Right Steel, plus Right Processing, equals Right Quality. But such a formula demands 100% quality-control. And that's exactly what Simonds maintains... 24 hours a day... in its own modern specialty steel mills at Lockport, N. Y. In these mills is much equipment of special Simonds design... supervised by Simonds metallurgists who work hand-in-glove with the Simonds Plant in Fitchburg, to assure Right Quality Steel for Right Processing into Simonds Saws, Knives, and other cutting tools. And right there you have one of the foremost reasons why Simonds is the top line of cutting tools for wood, metal, paper, plastics.



they have been able to outsell the cold-cathode people.

• **Causes**—A reason for the poor competitive showing of the cold-cathode lamp may lie in one definition of the tubes: "any lamp that functions above 600 v., and therefore requires special, approved protective devices" (like disconnect circuits and mechanisms). These extra safety devices, of course, add to the cost of installation.

Another, and smaller, stone in the path of success may be the efficiency that cold lamps lose in operation. Because of the high voltages that pass over the cathodes, you get a voltage drop. That means a wattage loss that shows up as heat on the surface of the bulb. This wasted energy actually makes cold-cathode lamps 40F to 60F hotter at the ends of the tube than the hot-cathode types.

• **"Cold" Side**—Cold-cathode lamp makers think, though, that the advantages of their products far outweigh these possible drawbacks. They stress the long life of the tube and the fact that it lights at only 150C, compared with 950C for the hot-cathode lamp. They say it has big advantages in low-temperature installations (in commercial refrigerators, or outdoors, for instance), because it will start easily in the cold. Its long life means less maintenance. And in frequent start-stop operation (as in subway cars, where current often goes on and off) they feel they have a definite edge because lamps start instantly.

• **Hot Side**—For their part, hot-cathode makers say their tubes are a lot safer and a good bit cheaper; their lights don't require high voltages and extra-cost protective devices. They feel their lamps are more efficient and cooler, since wattage loss is lower.

• **Display Tie**—Cold-cathode got its start in the display field. Most of the lamp makers today are, or have been, members of the electric-sign industry. This close tie with display work has had two definite drawbacks: (1) Most of the lamp operators are small companies without funds to carry on extensive research and promotion; and (2) the industry, for the most part, has concentrated on local advertising and display; it has neglected, to a great extent, the potentials in the broader commercial and industrial field. Also, standardization in cold-cathodes has been slow. Only in the last few years did the industry get started on a standards program through its clearinghouse, the Fluorescent Lighting Assn. Right now, the program aims at standardizing light sources, color quality, dimensions, holders, wattages, contacts, and safety devices.

• **History**—The history of fluorescent lamps goes back to 1896, when Thomas A. Edison got a glass bulb to fluoresce. In the 1890's, D. McFarlan Moore used the basic principle of cold-cathode in an

installation in Madison Square Garden. After the inert gases hit the market, Georges Claude devised the neon lamp, patented it in 1914. Its low efficiency confined use to signs, until researchers found you could coat the inside of the tube with phosphor. By the time of the World's Fair in 1939, the lighting industry had perfected hot-cathode lamps. In a few short years, hot-cathode business, sparked by manufacturers like General Electric, Westinghouse, and Sylvania Electric Products, had become big business (\$100-million in 1942). But cold-cathode has stumbled along at a slow pace.

• **Program**—Just the same, the smaller cold-cathode makers are still in the running. Their trade association has an active campaign to teach member companies how to widen markets. It encourages them to do development work (on protective devices, for instance) that may eventually open up the home market. Its standardization program aims to take cold-cathode out of the custom field and decrease installation costs.

• **Closing Gap**—Up to now, the big operators who make both types of lamps have recommended cold-cathode only for custom-built installations or for places where the owner has to have a tube with a life beyond 10,000 hr. Meanwhile hot-cathodes are steadily closing the gap in life expectancy. Sylvania said this week that it had upped the life of its hot-cathode tubes to 7,500 hr.

## Softwood Turns Hard Under Heat and Pressure

The Western Pine Assn. has found out how to make softwood so hard you can't drive a nail through it. It perfected the process at its Portland (Ore.) research laboratory.

The "hard" softwood is called Staypack. It is made by applying a pressure of 1,500 p.s.i. to softwood at a temperature of about 325F. The combination of pressure and temperature causes the lignin resin in the wood to flow and serve as a cementing agent. In processing, the board is compressed to about one-third its original thickness.

Almost any softwood will do, but white fir has proved best.

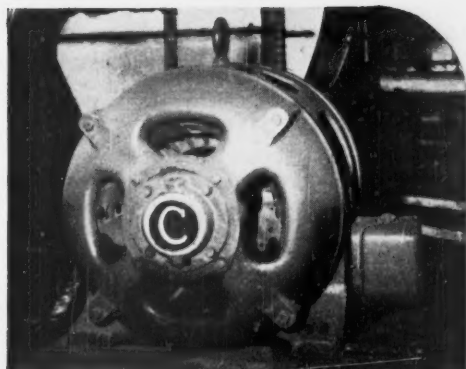
The Western Pine Assn. sees the new material as a natural for flooring, paneling, table tops, furniture, even bearings—any place where you need both hardness and moisture resistance. Staypack doesn't burn easily; it's alcohol- and cigarette-proof, Western Pine says.

The association is making the product available to member mills in 11 western states. U.S. Forest Products Laboratories, Madison, Wis., did the original work on it.

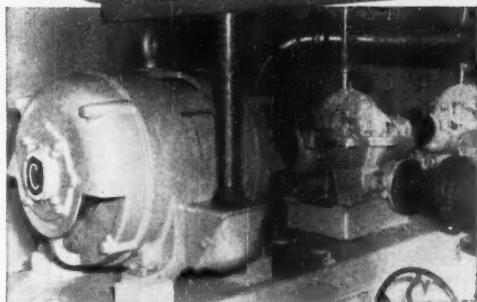


Century 40 horsepower, type SC motor driving an induced draft fan for a stack.

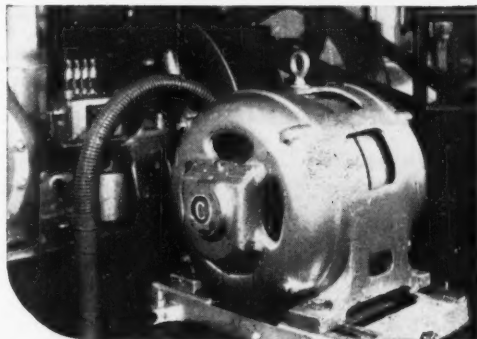
From  
*Century's*  
Line of Electric Motors  
You Can Select



- ① **Right Kind**—to match your current supply
- ② **Right Type**—to meet your load characteristics
- ③ **Right Protection**—against atmospheric hazards
- ④ **Right Size**—from 1/6 to 400 horsepower



Century 150 horsepower, type SC motor driving a two-stage centrifugal pump in a city water plant.



Two Century 75 horsepower SC high torque motors driving refrigeration compressors.

**T**he wide range of kinds, types and sizes of Century motors makes it possible to select a standard motor to meet the requirements of all popular applications.

They are available for both AC and DC current—high, normal and low torque characteristics. Types are also available for applications requiring varying speeds and reversing direction of rotation.

To protect against atmospheric hazards, Century motors are enclosed in open rated drip proof, splashproof, totally enclosed fan cooled and explosion proof frames. Many types are available with vertical and flange mountings as well as standard horizontal bases.

Specify Century motors for all your electric power requirements.

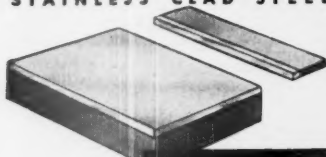
Popular sizes and standard ratings are generally available from factory and branch office stocks.



**CENTURY ELECTRIC CO.**  
1806 Pine Street, Saint Louis 3, Missouri  
Offices and Stock Points in Principal Cities

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or deep drawn!

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The Finer the Product  
For the Finest Finish  
Use

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**PERMACLAD**  
STAINLESS CLAD STEEL

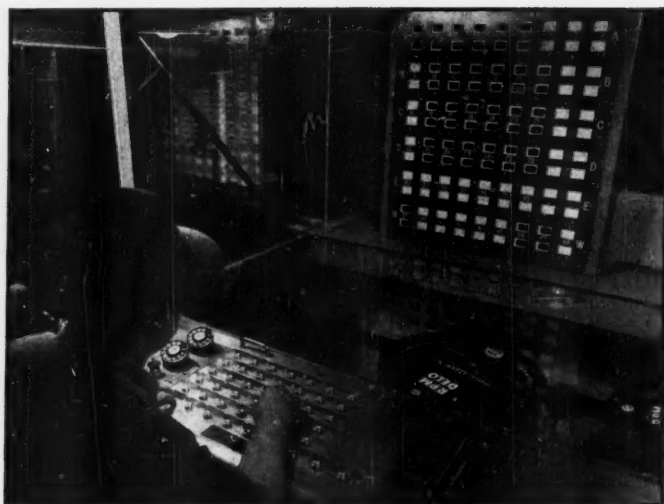
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Plates, Sheets (Alloy and Special grades).

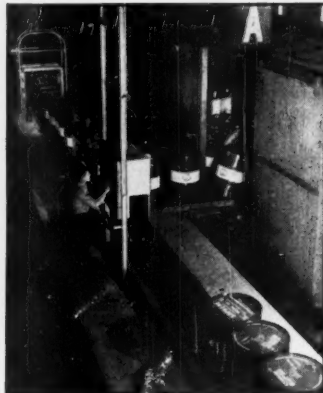
## PICTURE REPORT



**1** BARREL DISPATCHER in control booth touches the button that sends petroleum products to railroad spur, truck-loading dock, or storage. One set of buttons starts . . .



**2** AUTOMATIC CONVEYORS that segregate carloads of barreled products in plant basement to await shipment. Another set gets barrels . . .



**3** READY FOR THE RAILS. Barrels roll off conveyor for loading into waiting freight cars. Eight railroad spur tracks serve Socal's new . . .

## Pushbutton Petroleum Plant

Elbow grease bows out: in Standard Oil Co. of California's new petroleum-products plant. Fingertip control runs all three phases of the operation—manufacturing, shipping, and storing—at Socal's addition to its Richmond (Calif.) refinery.

The new plant turns out 38-million lb. of greases, lubricants, and specialties a year. It prepares them in giant versions of kitchen mixers, 10 to 75 bbl. at a batch. Stocks move through 20

miles of pipelines for automatically controlled processing.

One mile of roller conveyors fitted into the basement floor handles barreled products. This system, electronically controlled, shifts one barrel every three seconds to railroad spur tracks, to truck-loading docks, or to storage areas to await shipment. The plant covers seven and a half acres, makes 250 different kinds of petroleum products, from white oils to greases.



## with TOCCO\* Induction Heating

This part—a shifting lever for famous Lima Power Shovels—may not resemble any part which you manufacture. However, if you're concerned with the profits of your company, it will pay you to investigate the application of TOCCO Induction Heating to any of your products which require hardening, brazing, soldering, annealing or forging operations.

● Progressive engineers at Lima-Hamilton Corporation, Lima, Ohio have adopted TOCCO Induction Heating for hardening the Shifting Lever shown here.

**CUTS COST**—TOCCO Induction Heating of this part saves over 4¢ per piece—\$25 per hour—costs only 17% of former heating methods.

**SPEEDS PRODUCTION**—Automatic heating cycle is 4 seconds, quenching cycle 2 seconds, total production 600 TOCCO-hardened parts per hour.

**VERSATILITY, TOO**—This part is only one of 139 production parts TOCCO-hardened by Lima-Hamilton Corporation. All 139 show substantial savings over conventional heating methods.

TOCCO engineers are ready to survey your plant to determine where TOCCO Induction Heating can cut your costs, speed up your production, too.

600 parts per hour from this 50 KW, 10,000 cycle TOCCO Induction Heating Machine!

**THE OHIO CRANKSHAFT COMPANY**



# TOCCO

\*Under U.S. Pat. 2,818,000  
U.S. Pat. 2,818,000

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Please send copy of "Typical Results of TOCCO Induction Hardening and Heat Treating".

Name

Position

Company

Address

City  Zone  State

## Frigidaire's record proves . . .



"Dollar volume increased after I installed Frigidaire Air Conditioning in my jewelry store," says Robert S. Cohen, Winchester, Ky. C. Ratcliff Henry, Winchester, handled the installation of these Frigidaire Store Conditioners.

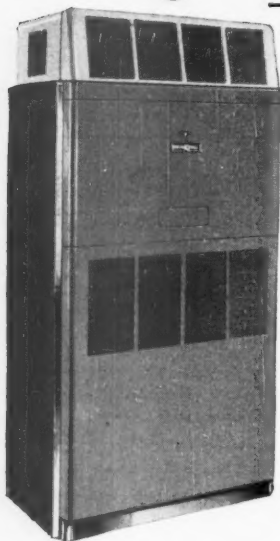


"Frigidaire's high quality was well-known to us," says B. F. Spitz of Sleepack-Helman Printing Co., Chicago. "That's why we chose Frigidaire Room Conditioners." North Town Refrigeration Co., Chicago, sold the equipment.



"One of our best investments is our Frigidaire Air Conditioning System," says Harold Star of Dallas Title & Guaranty Co., Dallas, Texas. Joe Hoppe & Co., Dallas, made the sale and the installation.

## you'll build a better business with this New Frigidaire Air Conditioner —now at a new low price



### Exclusive Multipath Cooling Unit

Scientifically metered flow of refrigerant keeps cooling action smooth and uniform. Special staggered tube system and counter-flow action insure swift, efficient cooling.

This wonderful new Frigidaire Self-Contained Air Conditioner can be installed almost anywhere in just a few hours. Its two-tone gray finish and smartly modern Raymond Loewy styling blend with any surroundings. And its new low price makes it far and away today's finest buy in air conditioning. Every part of the air conditioning mechanism was designed and built by Frigidaire. The famous Frigidaire Multipath cooling unit, compressor and controls are precision-matched to give you years of low-cost, trouble-free service.

Frigidaire Air Conditioning also includes compact, quiet-running room air conditioners (both window and floor types), and large-capacity central systems to meet almost any requirement.

### Free Air Conditioning Survey and Investment Analysis

Call your Frigidaire Dealer for a free survey of your air conditioning needs. His scientific Investment Analysis will enable you to judge accurately the value of Frigidaire Air Conditioning in your own particular business. Find his name in Classified Phone Book, under "Air Conditioning" or "Refrigeration Equipment." Or write Frigidaire Division of General Motors, Dayton 1, O. (In Canada, Leaside 12, Ontario.)



## Frigidaire Air Conditioning

Over 400 Frigidaire commercial refrigeration and air conditioning products  
—most complete line in the industry.

## PRODUCTION BRIEFS

**Fluorescent-light makers** have agreed to stop using beryllium phosphor in tubes after June 30, the Public Health Service says. New coatings will eliminate possible dangers of poisoning (BW—Apr. 9 '49, p68).

**Plant-maintenance show** is scheduled for Jan. 16 to 19, 1950, in Cleveland. Exhibits will stress cost-cutting through improved installation, operation, and maintenance. Also planned: a four-day conference on methods.

**Electrode production** will start on a commercial scale this summer at Great Lakes Carbon Corp.'s Morgantown (N. C.) plant. Great Lakes bought the plant over two years ago. But all output so far has gone to the Atomic Energy Commission.

**Du Pont won't make** any more sodium hydride, a chemical used in the processing of pharmaceuticals. The company has licensed Metal Hydrides, Inc., Beverly, Mass., to manufacture the stuff under du Pont patents.

**New job for extruded nylon strip:** Union Steel Products Co. will use it as anti-friction tracks on its Wendway conveyor systems.



### Heads Plastics Society

Horace Gooch, Jr., one of the founders of Worcester Moulded Plastics Co., Worcester, Mass., is the new president of the Society of the Plastics Industry. Gooch was elected this week at the society's annual meeting in Chicago. He succeeds George Clark, vice-president and chief engineer of Formica Co., who becomes chairman of the S.P.I. board.

*the watermarked bond*

*for all*

*fine-bond uses*



**Mead Bond**

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St. Louis 1, Mo.



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Go the WABASH WAY!

**WABASH  
RAILROAD**

## NEW PRODUCTS



### Dual-Power Scraper

Euclid Road Machinery Co., Cleveland, Ohio, has a road scraper driven by two 190-hp. engines, one mounted on the tractor, another on the rear axle of the scraper. This way, the company says, you get a four-wheel drive, which means better traction.

A hydraulic drive synchronizes the engines, giving the scraper its four-wheel drive. A torque converter on each engine permits shifting to any one of three speeds under full-load conditions.

One operator on the Euclid power scraper controls both engines (or one engine separately), and the scraper mechanism.

The unit has a capacity of 18 cu. yds. with conventional sides, 22 to 24 cu. yds. with crown sides.

• Availability: immediate.

### Suspension-Type Heater

Jackson & Church Co., Saginaw, Mich., has an overhead oil-burner unit for forced-air heating that mounts right on an air duct—half inside and half outside. The company recommends it for industrial, commercial, and residential installations.

The box-like section that holds the burner unit is made of 12-gage sheet steel. It's finished with a baked enamel that's bonded to the rust-resistant casing.

The heater weighs 575 lb. Eye bolts hold the duct to the ceiling at the point where the burner is installed, to support the added weight. Connections to the power source are solderless, and come ready to be attached to the control.

Hot-air and oil filters are a part of the burner's blower compartment. This, says the company, makes removal and installation easy—because that part of the installation is outside the duct.

Models are supplied with ratings from 85,000 to 400,000 B.t.u.

• Availability: immediate.

### Paint Peeler

An electric paint-remover does away with the old menace of using a blow torch, says the manufacturer, B&L Tool & Machine Co., Plainville, Conn. Using it is something like handling a flat iron. It blisters and softens the paint, which is then removed with a metal scraper or wire brush.

The unit may be used either indoors or out, will do the job on curved and irregular surfaces as well as on flat surfaces.

Weight is just over 1 lb., including the electric cord. The tool heats up to maximum temperature in 2 minutes. A heavy-gage shield of steel on top prevents accidental contact with the hot metal case below, also acts as a reinforcement for added strength.

• Availability: immediate.

### Easy-to-Build Cabinet

For the kitchen-remodeling market, Western Metalcraft, Inc., Olympia, Wash., has come up with a costcutting way to install metal-faced cabinets. Western's idea: "Let the kitchen wall serve as the back; let the amateur carpenter make the shelves. We'll supply the door and frames and the drawers. These are the parts that are difficult and costly to make." Western's idea worked out so well that the company can sell a partial cabinet assembly at about 40% less than regular cabinets.

Western calls the new line the Olympia Frontier. The units have steel doors and frames for wall and floor cabinets. They are fitted with chrome-plated, semiconcealed hinges, insulated doors, and a two-coat, baked-on enamel.

# A. O. Smith Builds ELECTRIC MOTORS

## SMITHway Electric Motors Now Power Hundreds of Products, Including the ATLAS FLOOR MACHINE



To electric motors, A. O. Smith is now devoting the same high standards of research and engineering which have distinguished the products of this firm for seventy-five years.

SMITHway Electric Motors are designed and built to bring to each application the maximum in compactness ... safety ... convenience ... and trouble-free service.

For special applications, SMITHway Electric Motors are built to exact design specifications, both electrical and mechanical, to meet specific product demands.

For all standard applications, SMITHway Electric Motors are built in both fractional and integral horsepower ratings: single-phase, 1/10 to 7½ hp.; poly-phase, 1/10 to 125 hp.



**ATLAS FLOOR MACHINE**, product of Atlas Floor Surfacing Machinery Corp., New York City, incorporates a SMITHway Electric Motor specially designed for the job. To retain the designer's requirements for good appearance, capacitors and starting mechanism are concealed under the top cover, with a vertical starting-to-running-switch mechanism. The entire machine recently passed rigid United States Navy tests.



**SMITHway ELECTRIC MOTOR** used in the Atlas Floor Machine is shown in operating position and, upside down, to expose gear and breather cap. To reduce over-all height, top end bell is concave, and necessary polishing weight is provided. Cast-in terminal compartment included for 3 prong terminals. The motor has high torque, and is built for continuous-duty operation. It exceeds the machine designer's required electrical performance.

# A. O. SMITH

Corporation



**For Electric Motors  
For Standard and Special Uses  
See the A. O. Smith Man**

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Atlanta • Chicago • Detroit • Minneapolis • Milwaukee  
Houston • Tulsa • Dallas • Denver • Seattle • Los Angeles  
San Francisco • Export Division: 13 E. 40th St., New  
York 16. Cables: ARLAB, N.Y.

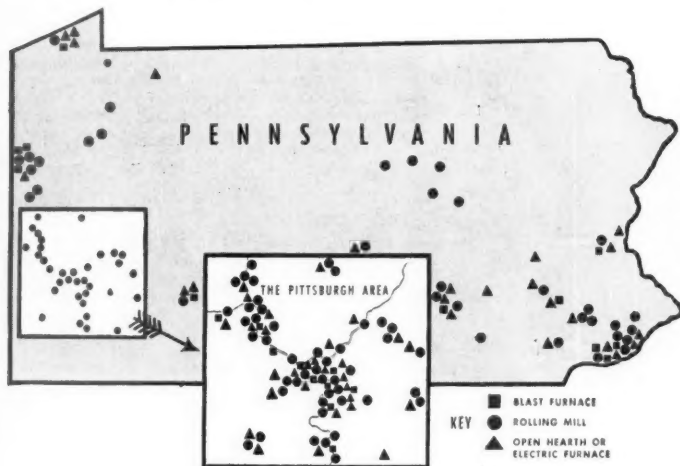
**NATIONWIDE MOTOR SERVICE**—24-hour, off-the-shelf motor service—fast and low-cost—is provided by the A. O. Smith Product Service Division everywhere in the U.S. Factory Service Branches and Warehouses at Union, N.J., Chicago, and Los Angeles.

# PENNSYLVANIA Offers C to all Kinds of M

**... and 4 of the  
top men of the Steel Industry  
tell some  
of the reasons why**

"... the availability locally of needed materials and equipment," says Benjamin F. Fairless, President of the United States Steel Corporation, "is one of the greatest attractions to new industries."

Among the materials and equipment he specified as ready here for manufacturers are: steel, aluminum, ferrous and non-ferrous castings, plate glass, cement, brick refractories, motors and other electrical equipment. And all this is centrally located in the most densely populated quarter of the United States.



This map shows the tremendous concentration of steel producing sources in Pennsylvania, and the manner in which they are scattered throughout this State, with plants in 70 cities and towns.

The steel industry has invested more than two billion dollars in new plants and equipment since the war... a large part of it in Pennsylvania.

By BENJAMIN F. FAIRLESS



The President  
of the United States  
Steel Corporation

"Pennsylvania has been blessed with a wealth of natural resources. Under its hills lie almost immeasurable quantities of coal and limestone, oil and natural gas. It is one of the leading states in such diversified activities as agriculture and manufacturing, transportation and mining.

#### **"In One of the Great Markets"**

"The industrial heart of Pennsylvania beats in Pittsburgh and Allegheny County. Pittsburgh has been actively engaged in making itself a more attractive place in which to live, to work, and to play.

"It is growing industrially, for it offers many advantages to new plants. Located in one of the world's greatest coal basins, it has an assured source of heat and power for years to come. It is centrally located in relation to the most densely populated quarter of the United States and has unexcelled rail, water, highway, and air transportation. Its people are skilled and industrious and its educational and recreational facilities are among the best anywhere.

#### **Close to Materials Sources**

"But Pittsburgh's greatest attraction to new industries is the availability locally of needed materials and equipment. Steel, aluminum, ferrous and non-ferrous castings, plate glass, cement, brick refractories, motors, and other electrical equipment are all Pittsburgh district products.

"New industrial arrivals in our district include three automotive plants, a large can manufacturer and a metal fabricating concern, while many other companies, large and small, are considering locating here or increasing their capacities in this district."

*Benjamin F. Fairless*

# COMPETITIVE ADVANTAGES of Manufacturing Industries

By EUGENE G. GRACE



The Chairman  
of the Bethlehem  
Steel Corporation

By H. G. BATCHELLER



The President  
of the Allegheny-Ludlum  
Steel Corporation

By BEN MOREELL



The President  
of the Jones & Laughlin  
Steel Corporation

"Bethlehem Steel's interest in Pennsylvania as a good state for industrial enterprise is evidenced by our numerous operations in the Commonwealth.

"We have plants at Bethlehem, Johnstown, Steelton, Lebanon, Williamsport; fabricating works at Pitts-town, Rankin, Leetsdale; mining operations in various sections.

"Our general offices are at Bethlehem; our chief officials' homes are here.

"Each location has its own advantages. Plants in the eastern section are convenient to the markets on the seaboard. Here we are able to serve ultimate consumers and the large number of processors and fabricators who find it advantageous to locate near steel plants.

"Our operations nearer the center of the state are favorably positioned for certain markets and admirably served by rail.

"An outstanding element in the assets of Pennsylvania is the high type of its population, the thousands of families who have character, skill and industrial experience.

"Bethlehem believes in the growth of the Commonwealth, and is giving continual evidence of that belief through its long-range program of improvements in Pennsylvania."

Eugene G. Grace

"Availability of raw materials, services, supplies, and skilled manpower are vital when a company plans a new plant or a plant expansion. In this respect, Allegheny Ludlum has never found Pennsylvania lacking.

"For instance, at Brackenridge we are installing an electric melt shop with four of the largest top-charge electric melting furnaces ever constructed. These, with a new electric blooming mill and other equipment, will increase our consumption of electricity so much that, when operating at capacity, we will use enough power to supply a city of 1,000,000. Few places have so much extra electrical power.

"Our confidence in Pennsylvania is attested by our improvement and expansion program. Our new melting capacity at Brackenridge—more than 400,000 ingot tons annually—will be the largest addition in 1949 at any plant, and it represents only a part of our program at that plant. Our West Leechburg plant, in the past three years has been improved with new mills and other equipment so that it is one of the world's most modern high alloy finishing mills.

"With present industries expanding and others moving in, Pennsylvania is truly the Workshop of the World."

H. G. Batcheller

"Jones & Laughlin has faith in Pennsylvania. This faith is founded on our experience of 97 years of continuous operations in this Commonwealth. We believe Pennsylvania has the natural resources, transportation facilities, water and power supplies and markets needed for a great industrial state.

## "People Work Together"

"But above all, Pennsylvania has the right kind of people: people who know how to work and live together for their mutual enjoyment of the good things of life.

"Pennsylvania has more farms than all of England and Wales. Pennsylvania has more accredited colleges and universities than any other state. It has one of the finest public education systems in the world.

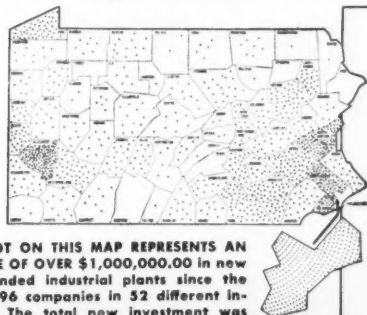
"Nature was in her most generous mood when she created Pennsylvania.

## "Millions in Improvements"

"Our confidence in the future of Pennsylvania is attested by the fact that Jones & Laughlin has a \$210,000,000 improvement program now under way. Most of this is being spent in Pennsylvania.

"We believe in the future of Pennsylvania because Pennsylvania is a good place to work and a good place to live."

Ben Moreell



EACH DOT ON THIS MAP REPRESENTS AN AVERAGE OF OVER \$1,000,000.00 in new or expanded industrial plants since the war—1096 companies in 52 different industries. The total new investment was more than two billion dollars.

The Pennsylvania Department of Commerce in Harrisburg will be glad to help you find a suitable location in Pennsylvania in the midst of these favorable factors for success.

## Commonwealth of Pennsylvania

JAMES H. DUFF  
Governor

THEODORE ROOSEVELT, III  
Secretary of Commerce

Lest we forget,  
Mr. Busy Executive...

*good management  
is management*



And, of course, management's most important responsibility is the promotion of profits through more efficient production and better control of costs . . . and that's where we come in.

General Engineered Shipping containers are lightweight, compact, extra-strong. They save packing and shipping costs. They are quickly and easily assembled. They save man-hours, help increase production. They are saving many firms substantial amounts month after month, year after year.

Let us show you how these same savings can be effected in your own business.

Our two Designing and Testing Laboratories are available for the improved packing of your products. They are equipped with the most modern testing apparatus and staffed by experts with many years of experience in designing more efficient shipping containers.

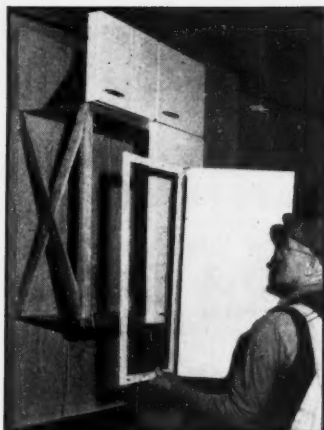
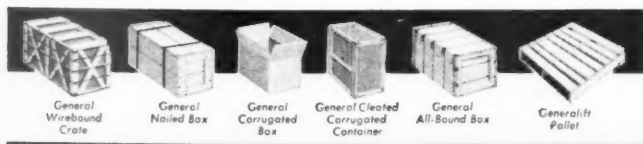
## General BOX COMPANY

...engineered shipping containers

GENERAL OFFICES: 502 N. Dearborn St., Chicago 10.  
DISTRICT OFFICES AND PLANTS: Brooklyn, Cincinnati, Detroit, East St. Louis, Kansas City, Louisville, Milwaukee, New Orleans, Sheboygan, Winchendon, Natchez.  
Continental Box Company, Inc.: Houston, Dallas.



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"THE GENERAL BOX"



finish. Those who want to do their own painting can buy the setup in prime finish. Drawers run on ball-bearing rollers.

One advantage of the line is that your shelves can be as wide or as shallow as you want, the company says. Another advantage: In remodeling, all you need do is slap the fancy fronts up over the shelves you already have.

• Availability: immediate.

### Big Stitcher

For light nailing jobs—applying metal lath, lining box cars with fiberboard, laying shingles, or attaching felt covering to roofs—Bostitch, 991 Mechanic St., Westerly, R. I., has a new heavy-duty stapler.

You hold the Model H-4 like a hammer, keep feeding staples into the driving head. You can operate it at arm's length. Thus, you're able to cover a good-sized area from one position.

The staples, made from  $\frac{1}{16}$ -in. wire, are nail-size, with  $\frac{3}{4}$ -in. legs. When you drive the staples into the work, the legs spread out. This puts the staple in tension, increases holding power and prevents it from pulling out under vibration. Each staple, Bostitch says, has as much holding power as two  $\frac{1}{4}$ -in. nails of  $\frac{1}{16}$ -in. wire.

Loaded with 50 staples, the "hammer" weighs 2 lb., 4 oz.

• Availability: immediate.

### Fizz Fixer

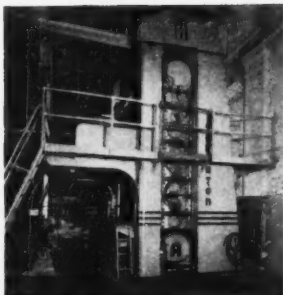
If you're in a bottling business, you may be interested in the Ashcroft Carbometer. This is a meter that gives a visual check on how much carbonated water there is in a soft drink. Getting a good drink means getting just the right amount of carbonation, says Manning, Maxwell & Moore, Inc., Bridgeport, Conn., the manufacturer. Its unit will tell you when you've brought your



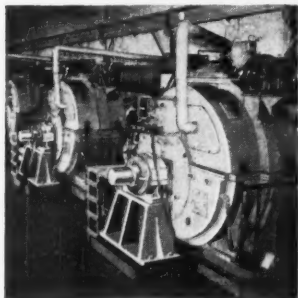
# Torrington Bearings *keep production rolling*

## in Appleton Paper Machinery

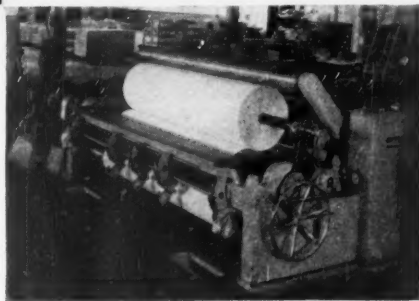
In the **Roberts Grinder**, built by Appleton Machine Company, Torrington Spherical Roller Bearings on the stone shaft stand the pace of the 'round-the-clock grind.



The **Appleton Winder** stays on the job, with down time held to a minimum by the dependable operation of Torrington Spherical Roller Bearings on the drum rolls.



In the **Appleton Supercalender Stack**, Torrington Spherical, Tapered and Straight Roller Bearings team up under tremendous loads to help produce paper of fine finish.



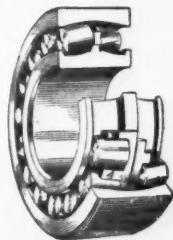
*Photos: Courtesy The Appleton Machine Company, Appleton, Wis.*

The paper industry is only one of many fields where Torrington Bearings are helping heavy-duty machinery maintain a steady pace of production.

Steel mills, oil fields, construction jobs and machine shops also hum to their reliable performance. High capacity and smooth operation combine in Torrington Bearings to assure long service life with minimum maintenance.

Step up the productive pace of your equipment. Let our engineers bring to your friction problems their experience in designing, manufacturing and applying all major types of anti-friction bearings. Write us today.

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*Throughout the process industries, Blaw-Knox engineering and construction facilities are being employed to increase production and build greater profits in a rapidly tightening market.*



carbonation up to the level you want.

The Carbotester gives a direct reading in "volumes" of carbonation. One needle shows the temperature of the solution, another registers the pressure. Where the two pointers cross on the meter dial, "volume" of carbonation is shown.

The unit is self-contained, is finished in stainless steel.

• Availability: immediate.

#### P. S.

Round two-scale computer does a double job. Set it at cost per item, and it shows cost per dozen; it also shows margin of profit on selling price for a given percentage of cost. The "slide rule" is made of Vinylite plastic, measures 4 in. in diameter. Plastic helps it stay flat and accurate, says the manufacturer, Graphic Calculators, 635 Plymouth Court, Chicago 5, Ill.

Bent metal posts supporting parking meters, street signs, and heavy fences—can be straightened out right on the spot with Barber Postratner Co.'s machine. One man with a bolt wrench can operate the 60-lb. unit. The company's address: 112 Irvington St., Annex, New Haven, Conn.

Buzz-O-Larm is a tiny electric alarm system for protection against fire, burglary, and flood. The device plugs into a standard wall outlet, depends upon string for its operation. String is attached to a fusible metal link (for fires), to doors and windows (for burglary), or to a floating bobber (for floods). The manufacturer, C. W. Carbert Co., 939 Hazel St., Birmingham, Mich., says the alarm is good for ten years' service.

Gearshift parking meter, made by the Dual Parking Meter Co., Canton 2, Ohio, makes it easy to change timing. It has an inclosed lever that lets city checkers reset the meter to handle 1-hr. or 2-hr. parking periods.

# "I'm Sick of Being Called 'Miss Mistake!'"



*"I'm the Gal  
who objects!"*



"Even the boss has started in calling me 'Miss Mistake'... and I'm not! If this office just wasn't so noisy, I could concentrate and do accurate work... getting things right the first time, too! But this continuous clicking, ticking, humming, and talking build up to such a racket that... well, a girl can't even *think* straight, much less *work* efficiently! And all because of this distracting noise! What they need around here is some peaceful, working *quiet*. Then I could do a good day's work without errors and overtime hours."



*"I'm the Chap  
who can stop it!"*

"Take it easy, Miss M. Don't boil over until your boss has called me in for a chat. Perhaps he doesn't know how easy it is for me to eliminate harmful office noise, to Sound Condition an office at night while the employees are at home. Why *me*, especially?"

"I'm a member of the largest and most experienced Sound Conditioning organization in the country. Acousti-Celotex has completed over 200,000 ceiling installations... more than any other company in the business! We supply the proper materials for *every* kind of Sound Conditioning job. If you are interested in increasing production efficiency, I'd like to give you a free analysis."

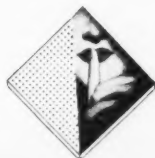


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nationwide organization and quality-proved products which enable your distributor to *guarantee* his work, his materials, his Sound Conditioning techniques. For the name of your local Acousti-Celotex distributor in the U. S. or Canada and a FREE copy of the informative booklet "25 Questions and Answers on Sound Conditioning," write to The Celotex Corporation, 120 S. La Salle St., Chicago 3, Illinois.



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TRACTORS — TRAILERS — LIFT TRUCKS

## MARKETING

### Price Guarantees Come Back

To get merchants to keep full lines in stock, some manufacturers are guaranteeing the trade against inventory loss. It's happening in groceries and paper lines, among others.

There has never been a time in the history of marketing when someone didn't want to go back to "the good old days." The only joker is this: Which days you call good depends on who you are.

• **Manufacturers' Heyday**—For many manufacturers, the good old days came just after the war. Price controls were dead, and the country hadn't yet soaked up so much merchandise that it had started to look before buying. The manufacturer turned out all he could—and the retailers and wholesalers groveled before him to get their hands on it.

The merchants aren't groveling any more. Now many a manufacturer is finding that he has to hold out some lures to move the goods out of the factory.

• **Price Guarantee**—One of the lures that has popped up more and more often in recent weeks is the price guaran-

tee. This is the contract that protects the merchant if the manufacturer cuts his price after the merchant has already signed on the dotted line. In plenty of industries—paint, paper, food, textiles, oil, appliances, and others—manufacturers have started to dangle this carrot in front of balking merchants.

Price guarantees pose their own problems to manufacturers and merchants alike. Benefits and liabilities abound on both sides. It's these pros and cons that buyers and sellers are trying to figure out.

• **Common Form**—In the commonest type of price guarantee, the manufacturer says to a distributor: "You stock up on my product, and if I cut my price in the next six months, I'll give you a rebate on your unsold stock equal to the amount of the cut."

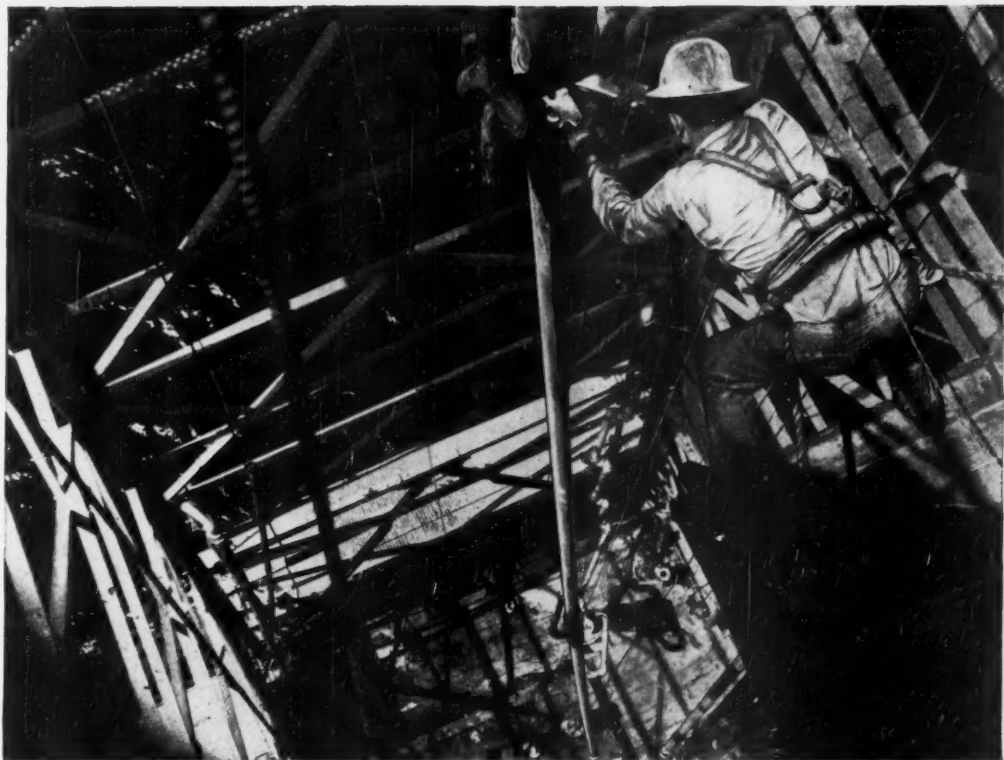
Naturally no manufacturer wants to



### Bloomingdale's Opens New Branch Store

This new store, which Bloomingdale Bros. Co., of New York, opened this week at Fresh Meadows, Long Island, isn't the company's first experience with branch operation. But Bloomingdale's thinks it has stolen a march on other New York department stores by being the only one with a branch actually integrated into the New York Life Insurance Co.'s Fresh Meadows residential development. New York Life built the store as part of the project, then

leased it to Bloomingdale's (Federated Department Stores' Manhattan outlet). The new two-story-and-basement building has all the newest equipment—air-conditioning, rose-tinted lighting (to flatter the merchandise and the customers), escalators, and color-scheme separation of departments. The Fresh Meadows store is Bloomingdale's first all-new branch; its other branch (in New Rochelle, N. Y.) was bought as a going concern (Ware's), then remodeled.



## Lost and found department three miles down

Frequently work must halt for days while the anxious crew fishes lost instruments, worth thousands of dollars, out of a hole two or three miles deep.

Ordinary steel measuring line that lowers these instruments into the oil well snaps from the corrosive mixture of briny water and "sour" oil and gas. To avoid costly breaks and delays, a more durable measuring line is now made of ARMCO Stainless Steel.

This bright, rustless steel is produced in many different forms and grades for many different uses. You'll find it fighting corrosion in such sturdy items as kitchen sinks, hotel and hospital

equipment, watch cases, orthopedic braces, table cutlery, range and refrigerator parts and washing machine tubs.

In many cases, even the first cost of stainless steel is lower than for short-lived materials. The high strength of this corrosion-resisting steel often permits the use of lighter gages, and you can omit plating costs because ARMCO Stainless Steel is solid, rustless metal all the way through.

The familiar Armco triangle on steel products is a trademark known to thousands and gives product manufacturers and retailers a valuable sales aid.

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## GAYLORD CONTAINER CORPORATION

General Offices: Saint Louis

220

Corrugated and Solid Fibre Boxes • Folding Cartons •  
Kraft Grocery Bags and Sacks • Kraft Paper and Specialties

make such a deal if he doesn't have to. He would rather have the distributor take the chances. But makers of many products are finding that distributors won't carry stocks big enough to fill all orders unless they have some kind of assurance on price. And inadequate stocks at any distributive level means lost sales for the manufacturer.

• **Merchants**—For their part, the merchants like some of the guarantees—but in others they can't see much value.

In the grocery field, for instance, some of the national-brand manufacturers are offering price guarantees to wholesalers. The guarantees state that if the manufacturer cuts his own prices, he will make good the inventory loss that the wholesaler takes.

On the face of it, say the wholesalers, that sounds good. But take the case of one large fish packer on the West Coast. A while back he guaranteed the prices on one of his products at about \$22 a case. The going market price for competing merchandise now is around \$16 to \$17. The big packer, however, is still clinging to his \$22 ticket. Result: Wholesalers handling his line can't sell his products unless they cut the price themselves and forfeit the amount of the guarantee. Naturally they don't want to do that; so stocks of that packer's merchandise are sitting quietly in the warehouses.

This kind of guarantee isn't worth much, say the wholesalers. If the manufacturer doesn't cut his price as the competition's prices drop, the wholesaler is still left holding the bag.

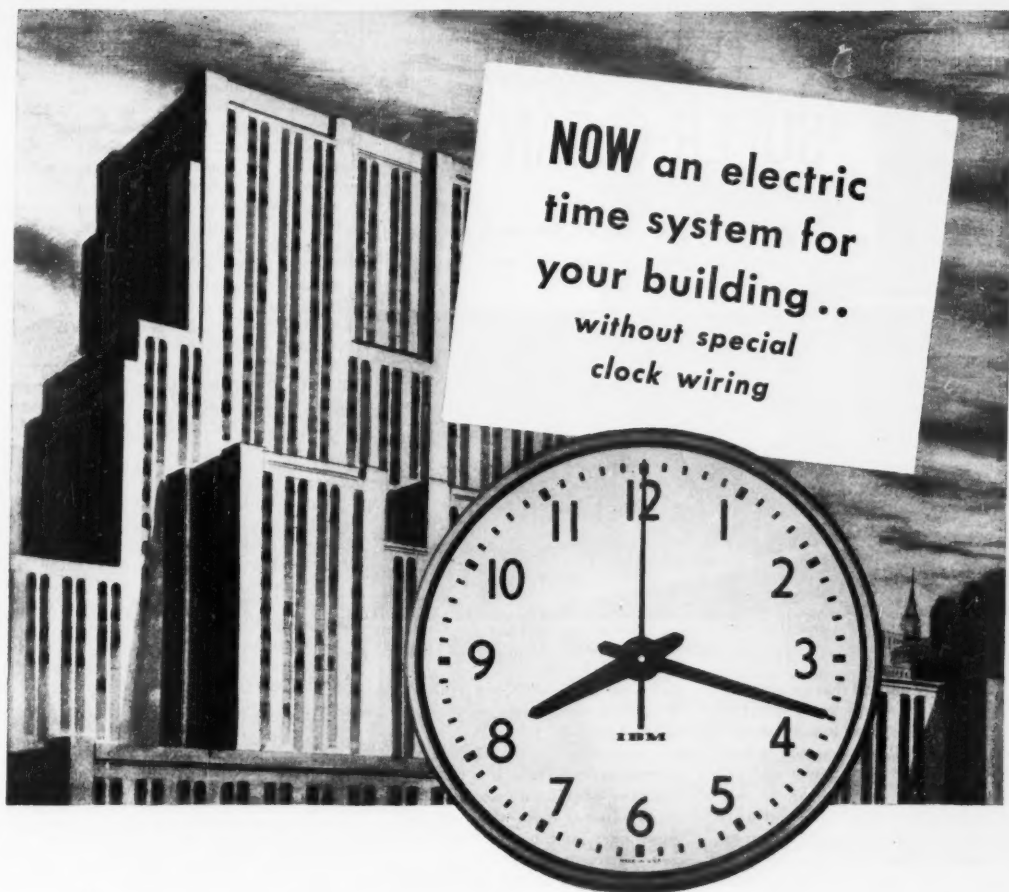
• **Competitive Guarantees**—A guarantee that would please distributors would go something like this: "You, as a manufacturer, guarantee your prices against the prices of your leading competitors. If they cut their prices, you cut yours enough to keep in the running—and rebate the difference on inventory."

That, say the wholesalers, would keep the merchandise moving instead of piling up in dead storage.

• **Paper Industry**—This type of guarantee is beginning to show up in the paper industry. It's not very widespread yet; most of the guarantees have appeared in specialty lines, and to some extent, in toilet tissue and paper toweling.

The paper manufacturers reason this way: The specialties aren't big volume, fast-turnover items; that means that some paper merchants are more likely to drop them altogether than take chances on inventory losses resulting from price cuts. So the price guarantee is a must if the wholesaler is to keep stocking the specialties.

• **Textile Trade**—In the textile field price guarantees read somewhat differently. Here's what happens: A cutter orders some finished fabric from a converter on Jan. 1 at a specified price. He wants delivery in six lots, one lot on the



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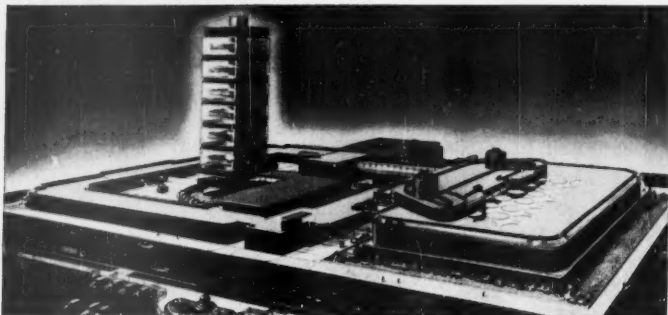


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**AIR FILTERS**  
AND ELECTRONIC PRECIPITATORS

first of every month. Three months later the converter slices 10% off his prices. For the goods already delivered, the cutter pays the original contract rate. For the rest he pays the new price.

You don't find this practice in the big-volume gray-goods business. But the closer the fabric gets to the finished product, the more likely you are to hear offers of price guarantees. Prewar, these were fairly standard practices in the textile field. During the war they were abandoned; but since the beginning of this year, they have been coming back.

• **Paint**—Price guarantees are turning up in the paint industry, too—at the dealer level. Today many paint makers are assuring their dealers that prices won't drop before the last week in June. That's the date when the government will probably change the flax-support price, bringing an estimated drop of 10¢ a lb. in the price of linseed oil.

If the price of paint drops after that date, however, dealers will be on their own, inventorywise. But between now and then the paint makers want to keep their plants running at least at the rate of current consumption.

• **Customers, Too**—You will even run into price-guarantee contracts between consumer and retailer. May-Stern Co., Cincinnati home-furnishings store, is only one of several merchants that have told consumers: If you're waiting for prices of electric refrigerators to come down, wait no longer. Buy one from us; if the price goes down before Sept. 30, 1949, you will get back the difference between the old and new prices. May-Stern's contract, however, limits the store's liability to \$50 a unit, or 10% of the retail price—whichever is smaller.

Camera stores frequently give their customers similar guarantees on purchase of expensive equipment.

## RESTRICTION ON LEAD PAINT

Makers of toys and children's furniture have a new marketing problem—if they sell in Maryland. After June 1, they can't manufacture or sell there "any toy or plaything, including children's furniture, decorated or covered with paint containing lead or other substances of a poisonous nature," unless the label states the nature of the paint.

Public resentment over three lead-poisoning deaths last year brought passage of the new law. Only one death, however, is said to have occurred when a child ate the paint from a crib; even in that case, the parent had bought the crib second-hand and repainted it.

Manufacturers are now trying to decide whether to put the new labels on their entire output or to label specially for the Maryland trade. One other possibility: The new law may influence some manufacturers to stop selling in Maryland altogether.

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# you?

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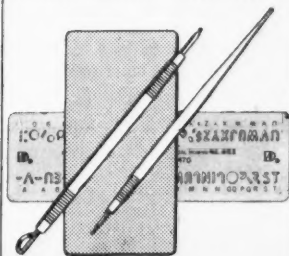
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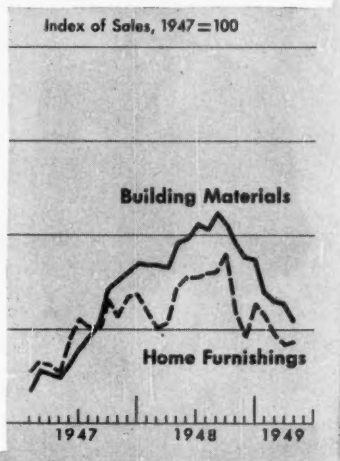
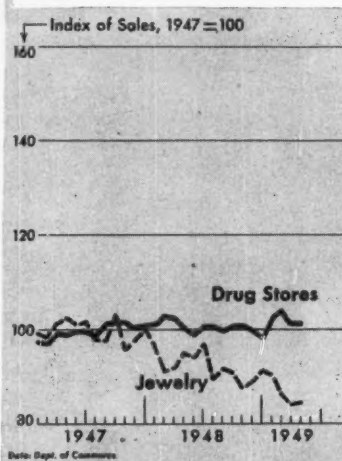
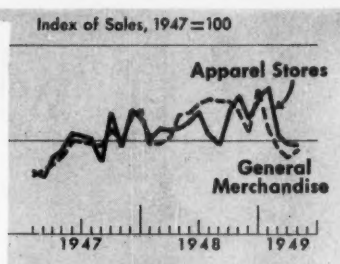
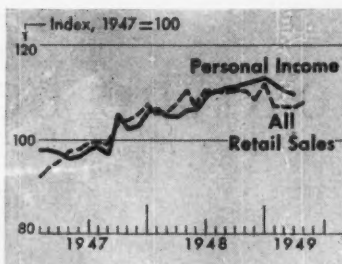
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## Upturn in Sales Indexes Gives

Significant point is that rise comes at a time when consumer income is falling. Sales patterns in different fields vary widely.

The big fraternity of retailers, wholesalers, and manufacturers who have to deal with the public's buying whims saw a little brightness on the horizon last week. The view was improved a lot by retail-sales figures that the Commerce Dept. issued for April.

After Commerce had figured out its indexes, and adjusted them for seasonal variation, it found that total retail sales had actually turned up a trifle last month. And this month's department-store volume seems to be holding level with year-ago totals.

• **Cross-Trends**—The significant part of the retail sales figures is this: Dollar sales totals have been holding up while consumers' incomes have been falling off (charts). That's a reversal of the trend that set in last autumn. Sales volume flattened out then, even though consumers' incomes kept on climbing all through 1948.

That lag in sales late last year helped bring on the inventory pileups, the production cutbacks, and finally the layoffs,

which caused the recent easing in incomes. Thus, sustained sales volume may imply a reversal in that economic chain of cause and effect.

• **Unit-Volume Showing**—This turn in buying behavior was mostly due to price cuts. And that makes the recent showing in dollar sales stand out still more favorably, for if retail prices have been easing off while dollar sales have been holding steady, it means that more merchandise is being moved.

To be sure, these over-all trends in retailing provide only general background for the individual lines of consumer goods. Sales patterns line by line have been very mixed, both early this year and late last year.

• **The Automotive Group**—The biggest sales gains have been rolled up by automobile dealers. Spring car-buying has lifted dollar volume 15%-20% ahead of year-ago levels—despite some falling off of repair-parts business.

With more cars on the road, filling stations are also making a strong show-





## Retailers Hope

ing. After a slight winter easing, sales are pushing toward new highs again as summer motoring starts.

• **Other Durables**—The sharpest contrast to the automotive group is shown by two other durable-goods lines: (1) the home-furnishings group, which includes appliance and furniture stores; and (2) the building-materials group, which takes in hardware dealers. These lines hit their sales tops in the third quarter of 1948. Since then their dollar business has dropped sharply (15%-20%, adjusted for seasonal variation).

In looking ahead to autumn, business analysts foresee the chance that sales in these two pairs of durable lines will criss-cross. In other words, there's a strong possibility that auto sales may have rougher going after the early-summer sales peak (BW-May 7 '49, p.19). On the other hand, building materials and home furnishings, very much dependent on homebuilding activity, may pick up.

Housing got off to a very early start last year; that produced a sales hump in these "home" lines during the third quarter. This year's housing is moving more normally. If it matches forecasts (of a 1949 total close to 1948's), it will

### NO ICE REQUIRED for Fresh Seafood Shipments

One of the most significant packaging developments in the last decade is the H & D INSULPAK\*, a corrugated box in which coast-to-coast airborne shipments of pre-cooled foods are made possible—without refrigeration. INSULPAK now makes all America a vast potential market for seafoods of all kinds. Daily delivery of fresh, perishable foods everywhere is now accomplished by this new, insulated package. It is hoped that it will soon be available for wide-scale distribution.



## Good Packaging MAKES GOOD PRODUCTS BETTER

### This Shipping Box TELLS and SELLS

Here's the famous Duplex shipping-display box developed by H & D for those manufacturers who wish to display their products—effectively and economically—at point of sale. It's a regular corrugated shipping box which the dealer opens to form a colorful counter display with a sales message that attracts attention and makes people buy. The H & D Duplex shipping-display box protects your product in shipment—sells your product in the retail store.



### H & D PREPAK\* Increases Unit of Sale

Many items, such as china and glassware, can be prepared at the factory into selling units that step up sales. Instead of selling one item at a time, Prepak sells six, eight or twelve. Prepak promotes "take with" purchases, needs no repacking. The package illustrated contains a set of 8 glasses. It is made of light blue embossed corrugated board, printed in two colors, red and dark blue.



\* REG. U. S. PAT. OFF.

REG. U. S. PAT. OFF.

**H & D**

**BOXES**

FOR MORE INFORMATION, WRITE  
**HINDE & DAUCH**  
 Authority on Packaging

Executive Offices:

4904 Decatur St. • Sandusky, Ohio

Factories in:

Baltimore 13, Md. • Buffalo 4, N. Y.  
 Canton, Ohio • Chicago 22, Illinois  
 Cleveland 2, Ohio • Detroit 29, Mich.  
 Gloucester, N. J. • Hoboken, N. J. • Kansas  
 City 19, Kansas • Lenoir, N. C. • Montreal,  
 Quebec • Richmond 12, Va. • St. Louis 15,  
 Mo. • Sandusky, Ohio • Toronto, Ontario  
 Watertown, Mass.

## Having trouble with rust, mold and mildew?



**Ask your Frigidaire Dealer to show you how the Frigidaire Electric Dehumidifier removes excess moisture—automatically**

Protect your home or business from costly moisture damage simply and economically, with the new Frigidaire Electric Dehumidifier. Automatically—without muss or fuss—this amazing new device removes excess moisture from the air—guards against rust, mold and mildew. It's easily installed, plugs into any standard outlet. And it's powered by the one-and-only Meter-Miser mechanism, famous for thrifty, trouble-free performance in millions of Frigidaire products.

Your Frigidaire Dealer will be glad to show you how this electric dehumidifier pays for itself in the protection it gives. Or, send coupon below for complete information.

### MAIL COUPON TODAY

Frigidaire Division, General Motors Corp., Dayton 1, O. (In Canada, Leaside 12, Ont.)

Please send me more information about the new Frigidaire Electric Dehumidifier.

Name .....

Address .....

City .....

County ..... State .....

**FRIGIDAIRE**  
Electric Dehumidifier

perk retail demand up from present levels in the "home" lines during the second half of the year.

• **Nondurables**—Among the soft-goods lines, apparel stores and general-merchandise stores have suffered a 5%-10% drop in dollar volume from their third-quarter highs last year. Some of that is accounted for by price cuts. But the curve has stabilized in the last few months.

The food groups have been pretty stable for an even longer time. Dollar sales of retail food stores have held fairly steady for well over a year, despite the gyrations—first up, then down—in food prices. Sales of restaurants and taverns have been level for more than two years. Their business stopped growing back in 1947 when most retail lines were still forging vigorously ahead; that relative lag has been made up for by relative strength since the general decline set in.

Drug stores are another instance of early readjustment followed by relative strength. Their dollar sales have been fairly stable for more than a year.

The case of jewelry, however, affords quite a contrast. Dollar sales started to drop quite early in 1948—and they are still falling.

• **By Products**—The sales picture product by product—rather than by groups of stores—would undoubtedly show many more variations.

Within the apparel group, for example, dollar sales of women's wear hit the skids early in 1947 and have since recovered. Men's-wear dollar volume didn't start to fall until a year ago; it has not yet bounced back.

• **Hope**—Retailers do not pretend to foresee over-all economic trends, which will affect sales, any better than other businessmen. But they have reason to hope that the period in which retailing did much worse than general business is about over.

## New Business Hazard: Losing Ball Club

Television dealers in Cleveland are waving the Cleveland Indians' flag with one hand—and holding their noses with the other.

Here's the reason: Sales of TV sets in Cleveland went way up just before the baseball season opened. When the Indians won a few games, sales got even better. Then the ball club began to slip—and so did TV receiver sales.

The city's television merchants see a direct relationship between the two phenomena. They wish the club would win a few more games and thereby spark TV interest again. If they don't, says one dealer, "television sales will really go to pot, and the Indians can go with them."



## Refuge for the Weary and Dollar-Laden

There's still plenty of cream on the luxury market—if you have the right tools to skim it off. Cream-skimmers in California are going after it this way: They have built three new resorts, Wonder Palms (above), Thunderbird Ranch, and Shadow Mountain Club.

All are within about a dozen miles from Palm Springs, where the movie stars relax between pictures. Their pitch to the movie colony: Avoid tourists in Palm Springs by spending your time—and money—under the private palms of the new clubs.



## America Needs '49ers

JUST a hundred years ago, the Forty-niners stormed the gold fields of California. They faced staggering obstacles, sure hardship, uncertain reward. Thousands failed, thousands of others realized modest gain, a few made fortunes. None sought or received help or direction from a benevolent government.

Now a century later, America faces another age of golden opportunity--an

era when science and industry reveal new treasure to be had for the making. Turning today's visions into reality calls for '49ers--men of purpose and resolution, courage and independent spirit. You as a leader in your community may find a personal challenge and an inspiration in the Old '49er. By example and precept, you can help America toward her greatest accomplishments--in prosperity and peace.

### The Youngstown Sheet and Tube Company

General Offices--Youngstown 1, Ohio

Export Offices--500 Fifth Avenue, New York

MANUFACTURERS OF CARBON, ALLOY AND VOLOY STEELS

ELECTROLYTIC TIN PLATE - COKE TIN PLATE - WIRE - COLD FINISHED CARBON AND ALLOY BARS - PIPE AND TUBULAR PRODUCTS - CONDUIT - RODS - SHEETS - PLATES - BARS - RAILROAD TRACK SPIKES.



## business letters SHOULD BE business getters

• Take a good look at your business stationery. Is it modern? Does it inspire confidence? Will it bring in business? Your printer will gladly show you designs for an improved letterhead. And when it comes to selecting paper, he knows it's Nekoosa Bond for fine appearance, durability and the added prestige of a famous watermark.

America  
does business  
on...



NEKOOSA EDWARDS PAPER COMPANY  
Port Edwards, Wisconsin



SHOPPERS crowd house-goods outlet in Des Moines, one of the places where . . .

## City Store Wins State Buyers

Younkers of Des Moines hustles for all-Iowa market with branches, mail-order department, sound customer service. Competition is tough, but sales pay off.

In the fall of 1948 a lady bought a fur coat at Younker Bros. in Des Moines. During the winter, rich deserts and other goodies ballooned her dimensions. This spring she brought the coat back with a complaint: It didn't fit.

• **No Argument**—Younkers didn't argue. At a cost of \$40 to itself, the store refurbished, relined, and refitted the coat.

"This is deliberate policy on our part," says Morcy Sostrin, president and general manager of the store. "We don't want one dissatisfied customer if we can help it—and believe me, we try to help it."

• **Advertising**—Sostrin doesn't go to this extreme because he's overly charitable. "We figure," he says, "that the advertising value of such cases in small towns in Iowa is worth far more than the adjustment cost."

That philosophy has carried the company a long way toward its goal: Someday it wants people all over the state to think of the store as Younkers of Iowa—not just as Younkers of Des Moines. The 93-year-old company looks on the entire state as a "great decentralized city of 24-million buyers." It has already staked out that "city" as its trading area.

To reach every farm and city dweller in the territory, Younkers has built or bought, since 1941, five branch stores (in Ames, Ft. Dodge, Marshalltown, Mason City, Sioux City). Now Sostrin and his colleagues are poring over plans to sprout three more branches—in Iowa

City, Clinton, and Ottumwa. The Ottumwa store will open definitely in 1949, the others as soon after as possible.

• **Beginnings**—Younkers got its start in 1856—when Iowa was 10 years old. Samuel Younker opened a small general store in Keokuk. In 1874 he moved to Des Moines and geared his business, which was strictly local, to growing with the city. Between 1912 and 1928 Younkers took over four other Des Moines stores.

But during the twenties something else happened that had an even greater effect on Younkers' future than its purchase of the new city stores. Iowa modernized its highway network. As roads got better, people began to pour into Des Moines from out of town. It was then that Younkers began to think seriously about annexing the entire state.

• **Three-Pronged Attack**—Younkers figured that if you want to attract a lot of customers, you have to make it easy for them to shop. It tackled the job in three ways: (1) The store set up liberal credit policies, made it easy to get a charge account (it has about 60,000 charges now); (2) it put in a mail-order service that today accounts for 6% of sales; (3) it opened branch stores (the first one, in Ames, started in 1941), made it easy for people to go to Younkers without making an all-day auto trip.

The branch stores have proved a solid success. They now account for about 30% of total sales.

• **Middle-Class Trade**—Younkers carries a broad selection of merchandise, but its



main emphasis is on goods for the middle-income market. One reason is that income distribution in Iowa is much more uniform than in most large cities; there are few luxury buyers and few really poor people. In aiming at these middle brackets, Younkers has leaned heavily on nationally branded merchandise. Unlike many other large department stores, Younkers has almost no private-brand products.

Younkers, today, is far and away the biggest store of any kind in Iowa. But it has competition in every town in the state. Its toughest opponents: Sears, Roebuck and Montgomery Ward. Both concentrate on the same general market Younkers is after.

• **Newspaper Campaign**—To keep residents of the state coming to Younkers, the store channels a sizable advertising budget into newspapers. The biggest slice finds its way into the coffers of the Des Moines Register & Tribune. Sostin considers this publishing company's two papers the ideal media for his store, since their circulation area coincides with Younkers' trading zone. The Sunday Register, for example, goes to more than 500,000 subscribers, only 60,000 of whom are in Des Moines.

• **Other Pies**—Like many another up-to-date store, Younkers does plenty besides sell goods over the counter. It runs three restaurants in Des Moines. For customers who write in and want something special, Younkers' "Jane Wildner" will handle their shopping. Style shows and visits by celebrities keep traffic moving into the store (picture, below).

• **Labor**—In addition to its customers, Younkers keeps a friendly eye on its employees, too. Labor relations are good. There has been only one strike (elevator operators and porters, for six weeks in



IOWA'S PRIDE, pitcher Bob Feller, packs them into Younkers' sport department

# 100%

return on  
investment in  
8 months

**A Model HB-600 Cummins Diesel paid for itself three times over in fuel savings alone in only two years and 300,000 miles of operation. After the first eight months, all the work performed by the Cummins Diesel was clear profit for the owner.**

#### COST COMPARISON FOR 300,000 MILES

**DIESEL FUEL  
COST \$6,900**



**GASOLINE COST \$15,300**



That's a typical cost-record report from a textile hauler on the eastern seaboard who uses Cummins Diesels and gasoline engines to power his trucks. The Cummins Diesel's fuel bill for the two years was \$8,400.00 less than the comparable fuel bill of a gasoline-powered truck that accumulated the same mileage carrying identical loads over the same roads.

Cummins Diesels pay for themselves in fuel savings alone on all types of power jobs . . . automotive, industrial, marine . . . and go right on piling up profits for owners.

*Can you afford any other power?*

**Send me more information about cost-saving Cummins Diesels:**

Name

Address

City  State

Type of Equipment

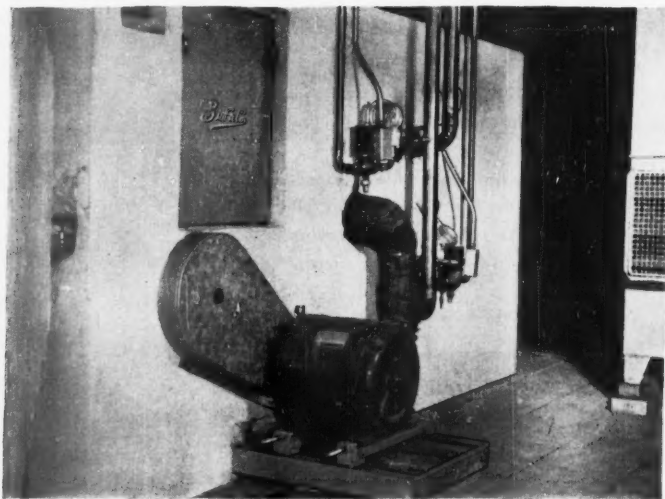
**CUMMINS ENGINE COMPANY, INC. COLUMBUS 5, INDIANA**



KEEP PRODUCTION  
FROM TAKING A  
"SUMMER  
VACATION"



*"Buffalo"* COMFORT CONDITIONING  
KEEPS PRODUCTION UP **All Seasons!**



"Buffalo" PC CABINET

Why let SEASONS—heat waves, cold waves—weather in general—AFFECT YOUR PRODUCTION? With "Buffalo" comfort conditioning in your plant or offices, high production is ALWAYS in season!

"Buffalo" PC Cabinets supply just the indoor weather you need—(1) simple cooling, (2) cooling and de-humidifying, (3) heating and humidifying, (4) thorough year-round air cleaning—in any desired combination. It will pay you—as it has paid so many others—to call in your "Buffalo" Representative for facts on "profit-conditioning" your plant!

**BUFFALO FORGE COMPANY**

458 BROADWAY

BUFFALO, NEW YORK

Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

Branch Offices in All Principal Cities

PANEL BREEZE FANS BELTED VENT SETS BELT-AIR FANS  
BREEZ-AIR ATTIC FANS "L" BREEZE FANS "NV" BREEZE FANS

1939) in the company's history. Employees who have been with the company for five years or more participate in a profit-sharing retirement plan. They also get death, disability, and severance benefits.

• **Rein Holders**—Control of Younkers is in the hands of a fairly close-knit group. A big chunk of the equity stock is owned—directly and indirectly in trust—by three old merchandising families in Des Moines, the Frankels, the Mandelbaums, and the Rosenfelds. Last December, however, the company went to the public to sell \$3.5-million worth of common and sinking-dollar preferred shares for its expansion.

• **Sales Hopes**—With its new stores, Younkers hopes to boost sales (more than \$27-million last year) even higher. The customers in Younkers 2.5-million person "City of Iowa" seem willing to help. Sales this year are beating last year's figures by about 3%.

## MARKETING BRIEFS

J. B. Ivey added a sixth link last week to its department-store chain in the Carolina's and Florida (BW—May 21 '49, p92). Ivey bought Taylor Furnishing Co., in Raleigh, N. C., changed the store's name to Ivey-Taylor Co.

• "Public Relations For Retailers," by Tom Mahoney and Rita Hession (\$4.50), covers a dozen angles of store operation—from leaving customers to handling competition. Publisher: The Macmillan Co., New York.

• Controlling interest (27% of stock) in Broadway Department Store, Inc., Los Angeles, passed to Hale Bros. Stores, Inc., San Francisco, in a sale last week. Hale already operates five stores in California; Broadway, four.

• More maple sirup will flow into the market this year. Spring production was 1.6-million gal., up 12% over last year's poor output. Vermont, biggest single producer made 11% less sirup this year. But gains in New York, Ohio, and Michigan boosted the total.

• Package Machinery Co. has merged with Frank D. Palmer, Inc., Chicago. Package Machinery is one of the largest makers of wrapping machines; Palmer produces continuous-motion carton-forming equipment.

• Brushless shaving creams now make up more than 60% of the dollar sales total of all shaving soaps. A survey conducted for Erwin, Wasey & Co., Inc., New York ad agency, puts brushless creams at a record high in dollar and unit sales.

# No Fuse Trouble



## Thanks to Mallory Elkonite\*

IT may seem a far cry from the giant Grand Coulee Dam to the little new house half-way up your street, but electrical circuits in both are protected by the same principle.

The principle is that of the circuit breaker which makes and breaks electrical current. At Coulee, the largest test circuit breaker in the world withstood the impact of the world's greatest man-made charge of electricity.

AND modern home builders have adopted the circuit breaker principle which has so many advantages over the old fuse. No more hazardous trips to the dark cellar when a fuse blows out! All you do is flick a switch... and the lights go on again.

An amazing metal, Elkonite, plays a vital role in modern circuit breakers—in the home as well as in mammoth power plants. Elkonite is a leading example of Mallory's creative research in modern

metallurgy. It is the perfect contact metal that combines electrical conductivity with hardness to make the contact practically impervious to wear, impact shock, sticking and erosion by arcing.

ELKONITE is but one of many Mallory achievements in the fields of metallurgy, electronics and electro-chemistry that have helped to make so many post-war products practical and dependable. For more than 30 years, Mallory has set the pace so consistently that many manufacturers have come to look to Mallory first for help with their design and production problems.

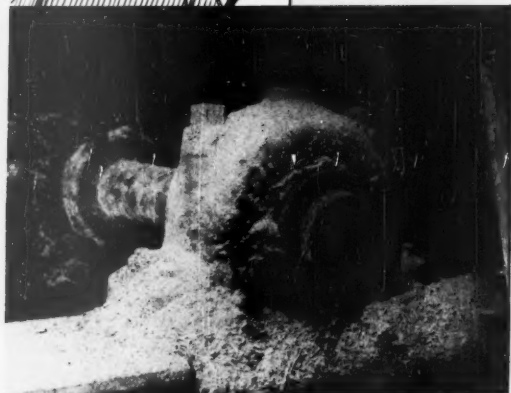
If you are looking for a competitive "edge" in the fields that fall within the scope of Mallory's interests, it will pay you to have a talk with our engineers. If they haven't the answer at their fingertips, they'll move the proverbial heaven and earth to find it for you.

\*Reg. U.S. Pat. Off.



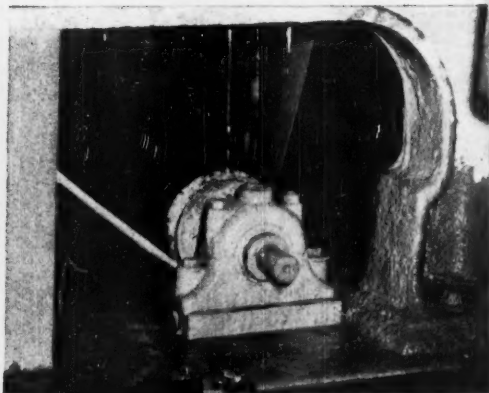


# CUT THROUGH THESE *POWER HAZARDS* TO CUT PRODUCTION COSTS!



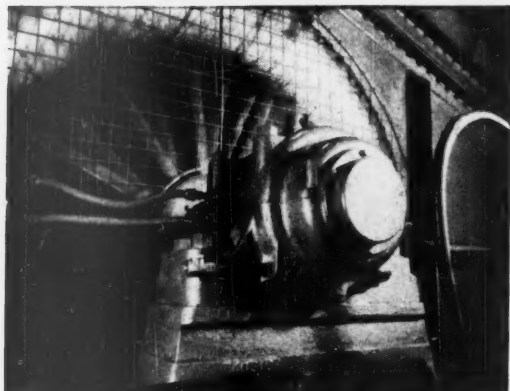
**DUST-**

Frequently under water and always subject to pitch, mud and dust extremes, this Dodge-Timken Bearing on a link chain conveyor in a plywood plant, has been in service many thousand hours beyond its normal expectancy.



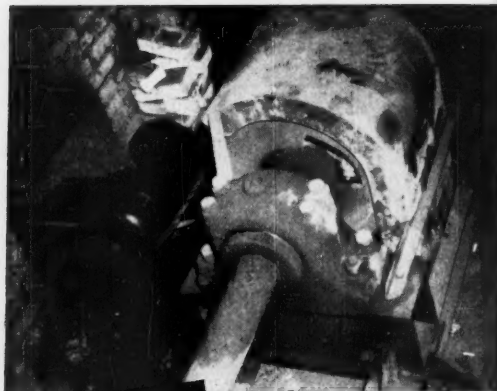
**WATER-**

In paper making, water is a normal operating condition. Dodge-Timken Special Duty Pillow Blocks on this 7-cylinder Board Machine have been operating dependably for years, despite almost constant drenching.



**SPEED-**

In a large electric power plant this turbo-vaned forced draft fan, operating almost continuously day and night at 1160 p.m., is carried on Dodge water cooled Sleeve Bearings which have served dependably since their installation 7 years ago.



**LOAD-**

A 100-ton pull is carried by two Dodge-Timken Type C Pillow Blocks on this cable drum in a Milwaukee plant. These bearings were installed eight years ago and "we have had no trouble at all," says the plant engineering department.

# Dodge "Firsts"

**give you new and better ways of transmitting power!**

In this first post-war year of the buyer's market the big job for industry is *lower costs*. In your plant you may find the way to more production per machine through better transmission of power.

Time and again Dodge Transmissioneers find "modern" plants operating with outmoded systems of mechanical power transmission. By applying new developments in power drives they have improved machine performance, saved power, cut "down" time, reduced spoilage and increased output without the addition of new machines.

Your power transmission problems may not be as spectacular as those pictured here. But it will pay you to check carefully. Question every period of "down" time, every sub-standard reject, every bit of spoilage. To help you find whether modern power transmission equipment will correct the waste and reduce your costs, call the Dodge Transmissioneer—your local Dodge distributor. He's factory-trained to analyze your power transmission problems. He'll give you information about the latest Dodge developments. Look for his name under "Power Transmission Equipment" in your classified telephone book.

**DODGE MANUFACTURING CORPORATION • MISHAWAKA, IND.**

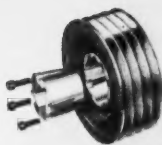
**FIRST IN POWER TRANSMISSION MACHINERY!**

# DODGE

→ of Mishawaka, Ind.

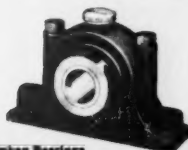
**CALL THE TRANSMISSIONEER**

Established in 1914, the Dodge school of Transmissioneering now has 464 active graduates. The number is constantly growing. There is a Transmissioneer near you. He can help you find the answer in applying power to the job.



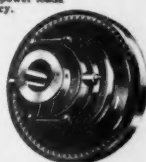
**A DODGE "FIRST"**

**TAPER-LOCK Sheave**  
Revolutionary... the simplest surest mechanism ever devised for holding wheels to shafts. Easy on, easy off—saves time and money.



**A DODGE "FIRST"**

**Dodge-Timken Bearings**  
Dodge mounts, seals and houses the famous Timken Roller bearing, delivers a pillow block of new high quality, ready to lock on the shaft and carry power loads with new efficiency.



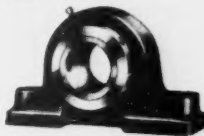
**A DODGE "FIRST"**

**Rolling Grip Friction Clutch.** No torques! Smooth as a rolling ball with the positive grip of a wedge. Easy, positive, smooth engagement.



**A DODGE "FIRST"**

**TAPER-LOCK Flexible Coupling.** Available from stock and ready to install without reborring. Famous TAPER-LOCK Bushing fastens to shaft with firmness of a shrunk-on fit.



**A DODGE "FIRST"**

**Dodge "9C" Ball Bearing Pillow Block**—the bearing with a new type, Neoprene metallic backed seal that won't blow out under pressure lubrication.



**A DODGE "FIRST"**

**Stearns Pillow Block**  
A precision built, ring-oiling babbitted bearing, fully self-aligning. Available from stock in both plain and water-cooled types from 1-7/16" to 8".

# New GOULD

## "Z" Plate

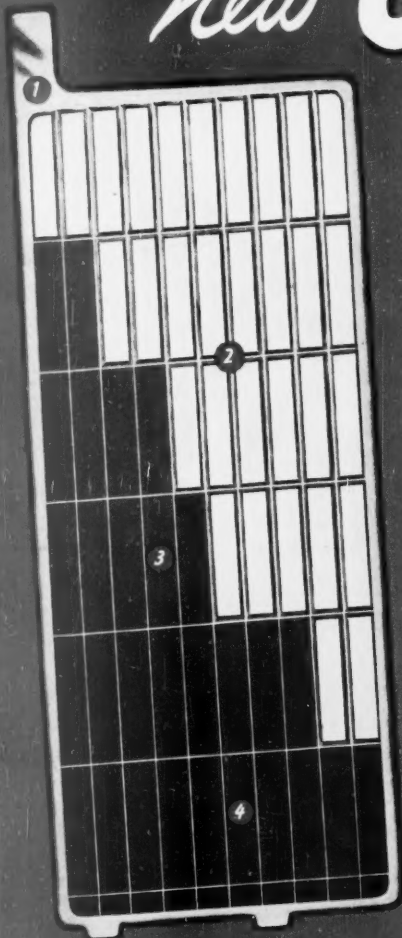
### REVOLUTIONIZES BATTERY DESIGN!

*Only GOULD Has It!*

A revolutionary new plate design greatly improves battery performance. The new Gould "Z" Plate means that Gould batteries stay new longer! Here's why:

1. Solid, non-porous positive grid.
2. All grid members are heavy with same cross section.
3. Regenerative oxide renews itself throughout battery service.
4. More active material per battery pound.

Brand new from Gould's modern laboratories and pilot plant. Available shortly in all "Thirty" and "Kathode" types. Ask for literature on how Gould's new casting techniques improve battery performance.



The Gould "Thirty"  
More than ever—America's  
Finest Industrial Truck Battery.

## GOULD

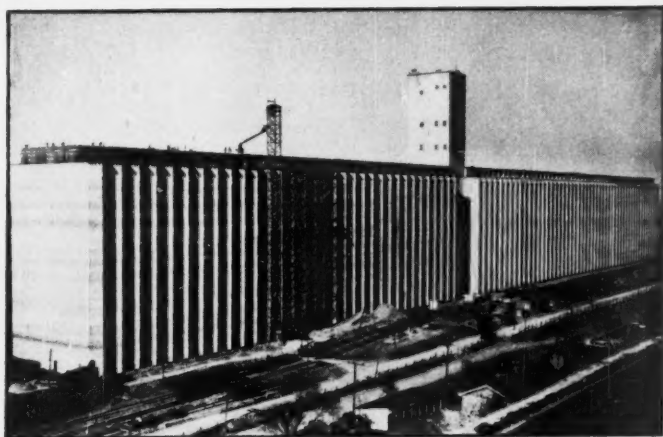
STORAGE BATTERY  
CORPORATION

TRENTON 7, NEW JERSEY

*Always Use Gould Automobile and Truck Batteries*



# READERS REPORT:



## Big Grain Elevator in Enid, Okla.

You must have been dozing with both eyes closed to print the statement that the 13½-million-bu. elevator built at Albany, N. Y., to Cargill's specifications in 1932 is the "largest in the world" [BW—Apr. 16 '49, p. 65]. If it is true that there is no single wheat elevator in the world larger than the 13½-million-bu. Cargill elevator at Albany—and the one we are going to tell you about—then we are indeed indebted to you for bringing to our attention the fact that Enid, Okla., is the site of the largest elevator in the world. We refer to the elevator of the Union Equity Cooperative Exchange [picture, above] which has a capacity of 18½-million bu.

This elevator was designed and built by E. N. Puckett, manager of the Union Equity, which is the cooperative marketing agency of the Farmers Cooperative Wheat Dealers Assn., whose membership spreads through Texas, Oklahoma, New Mexico, and Kansas, and whose offices are at Enid.

The construction under way in the picture [top, left] is a 4-million-bu. addition to the elevator. The elevator was 14½-million bu.; this capacity was added this spring. The elevator is now ready to store and handle 18½-million bu. of the current crop, which will be pouring into Enid next month.

You will note from the picture there has been a radical departure from the conventional round cylinder design for concrete elevators. "This elevator," states Mr. Puckett, "is nature's own design." Each column is hexagonal, and was inspired by the geometric characteristics and economical design of a beehive; and as perfected by Mr. Puckett and his engineers, reduces the cost of construction from 15% to 25%.

Enid has long been a grain center and now has a total elevator wheat capacity of some 30-million bu.

Notwithstanding all of this, wheat storage is still short and at a premium in this area; and with the increasing carryover each year, and the burdens it will place on storage and handling of current crops, Mr. Puckett and his organization are even now planning an elevator much larger than his present one.

In the meantime, until Cargill or some other firm calls attention to an elevator that will surpass our capacity, hadn't you better give credit to Mr. Puckett, the Union Equity, its members, and the city of Enid for having the largest elevator in the world?

FRANK CARTER

MAYOR,  
ENID, OKLA.

• Our eyes were open. The grain trade tells us the huge Enid plant is really two separate elevators. As we get it, they are 240 ft. apart, have separate head houses. Each has its own car dump. The old elevator is approximately 7½-million-bu. capacity; the newer one is 11½-million bu., including the 4-million-bu. addition.

The Albany elevator is all under one roof, and is one complete plant.

## Idea Free, Check Patented

Sirs:

Thanks very much for your fine article, "How to Put Your Paychecks to Work," which was accompanied by a reproduction of our ABC Insured System check [BW—May 14 '49, p. 26].

We'll be glad to give every BUSINESS



# RUST

## is Deadly to Metal

Once started, rust destroys relentlessly. Around the clock it ravages property . . . industrial plants, public utilities, at home and on the farm. This metal-consuming scourge rolls up an annual damage bill that costs the nation in excess of \$6 billion a year. Where there's metal, rust always threatens—unless protective steps are taken.

## Stop This Destroyer With RUST-OLEUM

You'll find RUST-OLEUM the perfect answer to the problem of stopping rust, indoors or out. It adds years of extra use to all metal equipment and surfaces—roofs, gutters, smokestacks, fire escapes, underbody of trucks and automobiles, and hundreds of other rustable properties. Furthermore, even where rust has already begun, Rust-Oleum prevents further damages. It can be applied directly to rusted surfaces—by brush, dip or spray—and dries to a firm, elastic protective coating that is highly resistant to rain, snow, dampness, calcium chloride, salt air, heat, fumes and ordinary weathering.

## Tell Us About Your Rust Problems

Prove the protective qualities of Rust-Oleum to your own satisfaction. If you have a rust problem, give us the details. We will send you full information on Rust-Oleum with specific recommendations for application.

It's available in aluminum and all colors including white, through industrial distributors in most principal cities.

RUST-OLEUM Corp.,  
2423 Oakton St.,  
Evanston, Ill.

See Our Complete  
Catalog in Sweet's,  
or Write Today!



# RUST-OLEUM

## Stops Rust



DEPRESSING



HEAT

OR



REFRESHING



"COOLTH"

**—HOW DO YOU WANT YOUR OFFICE WEATHER  
THIS SUMMER?**

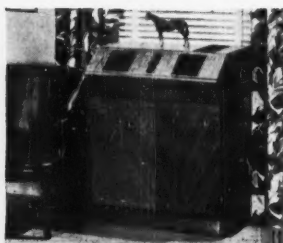
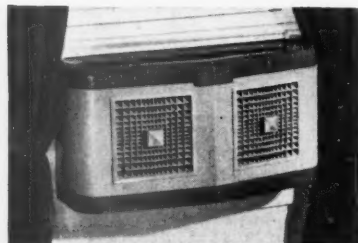
**THE WEATHER IN YOUR OFFICE** this summer can easily be the weather you want... cool, fresh, invigorating. All you do is install a Philco Air Conditioner now.

For Philco Air Conditioners give you real air conditioning. They cool the air, dehumidify and circulate it. They bring in fresh air from outside and clean it. They remove stale indoor air. They are quiet, vibrationless, efficient. And you'll be surprised how little they cost.

For offices or rooms up to 400 square feet, your Philco Air Conditioner fits snugly and neatly into the window. Cleanly and simply styled, it comes in ivory or a soft two-toned brown. The beautiful walnut console is specially designed for the larger offices up to 500 square feet.

Decide now to be cool and comfortable this summer—and call your Philco dealer today. He's listed in your classified phone book.

## PHILCO ROOM AIR CONDITIONERS



WEEK reader all the help and information they might want on how to convert their paychecks into "management messages." There is no better medium of communication with employees—and every employer should emphasize the gross amount which he pays and should play up favorable matters such as group insurance plans for which he pays part of the premium—and Savings Bonds.

But the last sentence in the article needs correction. We haven't attempted to patent the management-message idea, and will not do so. But the check as illustrated is another matter.

ABC System checks are made exclusively by Todd. Employers, employees, drawee banks, and even merchants who cash ABC checks are insured against loss by the U.S. Guarantee Co., and we make arrangements for merchant cashing places for employees who cannot conveniently use bank facilities.

Even the design is registered—the dot pattern, when ink eradicator is applied, vanishes and hundreds of the word "VOID" appear in their places. The "ABC Insured System" watermark is registered, too. The paper is never sold in blank to printers—we ship only finished checks, under seal.

GEORGE L. TODD

THE TODD CO., INC.,  
ROCHESTER, N. Y.

### Splendid Reporting

Sirs:

We extend our sincere congratulations to you for your excellent presentation of the industrial situation in Lawrence, Mass. [BW—May 7 '49, p.24]. It was a splendid piece of reporting.

IRVING E. ROGERS

PUBLISHER,  
EAGLE TRIBUNE,  
LAWRENCE, MASS.

### More Hoists Completed

Sirs:

You had a picture of large hoist we made and small writeup [BW—Mar. 19 '49, p.22]. We wish to take exception to your statement that six of the hoists were never complete. The fact is that three hoists were finished. One of these was shipped to England, the second one to France, and the third was recently loaded for shipment to France. The remaining four hoists were not entirely finished, but there was only a limited amount of work to be done. The French government has not yet decided, according to our best information, as to whether or not... some or all the remaining work will be done in France.

R. C. STOBERT

PRESIDENT,  
HARDIE TYNES MFG. CO.,  
BIRMINGHAM, ALA.



REVOLUTIONIZING THE OFFICE



**1** AT STANDARD TYPEWRITER, a Prudential girl turns out 600 premium-notice notices a day, while at . . .



**2** ELECTRIC TYPEWRITER, using continuous forms, her co-worker can produce 700 a day. But . . .

## Handling More Work in the Office

Most people think of the industrial revolution as something that happens in a factory. But today the industrial revolution is spreading into the business office—with the same breath-taking speed and thoroughness that it took over the factory.

To a businessman, this change in the office has three big meanings:

(1) It has created a boom in the office-equipment industry—a boom that could keep a lot of its steam even in a depression.

(2) It is making big business more workable.

(3) It is only on the threshold of almost unbelievable advances.

As machines were the heart of the industrial revolution in the factory, so are they its heart in the office. It has long been almost a cliché that the man wielding a pick and shovel can no longer compete with the man operating the power shovel. Equally true, but less obvious, is a newer fact: The best bookkeeper figuring with pen and ink can come nowhere near competing with a high-school girl figuring by machine.

Office machines are the machine tools of management. Without them, modern management would be almost as helpless as the machine shop without the lathe, the auto industry without the assembly line, the steelmakers without the open-hearth furnace.

Why has this happened? It was the machine in the factory that put the machine into the office. The very size of U. S. industrialization made our economy incredibly complex. The sheer weight of mechanized production brought an ever-increasing amount of detail and paper work to its managers—inventory checks, production planning, plant layout, marketing research. Only office machines which could work fast and accurately

could keep up with the problems posed by the production machines in the factories.

### I. THE REVOLUTION COMES

This complexity had its first real impact on the office during World War I. The start of a national income tax had added a big chunk of paper work. Then the twenties brought a major change in the business structure as corporations became larger and larger.

That was just the beginning. The New Deal raised the amount of business paper work to new highs. Social Security and wage-hour legislation alone changed payroll accounting from simple record-keeping into a branch of mathematics. Later, most employers also had to deduct withholding taxes, hospitalization, money for savings bonds, and union dues from wage checks.

All these details and many more which kept piling up made management's burden heavier and heavier. Bigness began to look more like a curse than a blessing; the bigger you got, the more detail, the less control you had over the business. The watchword became decentralization: Break up the big corporation into semiautonomous divisions and units that can be handled more easily. Otherwise you can't compete with small business.

Largely as a result of World War II, this attitude may soon change considerably. Because of new high-speed, electronic machines developed for the military, bigness may no longer be a problem. Such machines, plus their less spectacular ancestors, are giving management more control over its operations than it has had at any time since the industrial revolution really took hold.

As these new and revolutionary office machines come into the market over the next few years, they may pro-



her co-



I.B.M. ALPHABETIC TABULATOR prints 7,000 a day with only 1% error (as against 25% by typing methods). And . . .

**4 IN THE FUTURE**, an electronic machine similar to this I.B.M. calculating punch may boost the daily rate to at least 30,000

vide the greatest impetus to big industry and big government this country has yet seen—simply by making bigness workable.

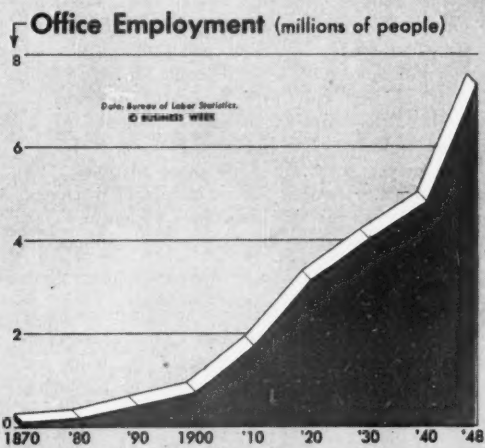
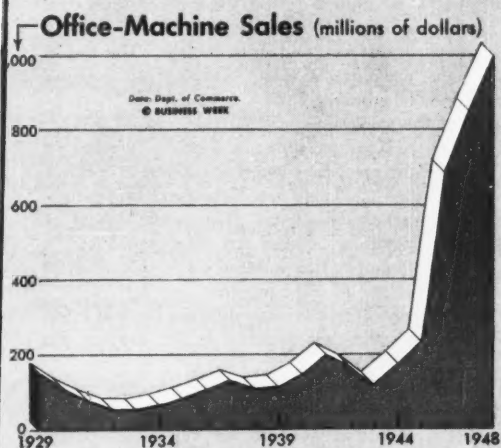
### A Growing Need

The need for greater control would be reason enough to keep the postwar demand for office machinery high. But full employment has pushed that demand even further. That's because:

- (1) It is no longer possible to hire college-graduate-level girls to work at filing-cabinet-level jobs.
- (2) Any office worker, regardless of ability, today commands an income far above prewar.
- (3) At least right after the war, productivity all along

the line was low. The only way an office manager could keep costs down and still handle the heavier work load was to mechanize.

This situation has given the office-equipment industry the biggest bonanza in its history. In 1948, its sales totaled around \$1-billion—more than four times the sales in any prewar year (chart, below). And most of the industry looks at the future with an almost cocky cheerfulness. It figures that the economy can no more get along without business machines than it can get along without food. One big equipment maker says that even a serious depression wouldn't affect his business. At such a time, companies would be more inclined to buy machines just to cut costs. And anyway, the government



**FEED FOR MACHINES** has brought a boom to office-equipment industry (last three years estimated). Yet . . .

**WHITE-COLLAR JOBS** have increased faster in number than has any other kind of employment—and are still climbing



would need more machines just to keep track of relief rolls.

## II. THE GOAL: SAVINGS

The variety of office machines is almost unlimited. They save space, time, money, effort, or all four. But in making these savings, they often make it possible to do jobs of a quality and scale that couldn't be done at any price without them.

There is, for example, microfilming equipment which keeps records in a tiny fraction of the space once required. The electric typewriter takes only some 6% of the physical energy required to operate a standard typewriter. Because this leaves a typist less fatigued, it increases her accuracy while increasing her output.

Dictating machines cut a secretary's letter-writing time in half, leave her free to do other jobs. Bookkeeping machines take over fagging, morale-breaking routines—and handle them more accurately. In a few hours high-speed calculators work out vital business problems that would take a mathematician so long the problem would be obsolete by the time he had solved it.

Management often figures that it has cut back costs about as far as it can on the production level. But in the office you can find plenty of glaring examples of waste. One of them: Before the war, an automobile company made a special engineering cost study. Because of human errors along the way, the study had to be done over 76 times. Today a machine does the job once—cheaply, speedily, accurately.

## III. FOR CORPORATIONS

Without office machines, many big companies would not be able to function at all. Costs would be staggering. The companies literally could not do many jobs essential to their existence.

Take, for example, Prudential Insurance Co. of America. One of the world's biggest corporations, Prudential has 45,000 employees, 27-million policyholders, handles as much mail as a city of 135,000 people. It has 28 field offices which deal only with Prudential investments, 1,200 other field offices which handle insurance.

Just in Prudential's home office in Newark, N. J. (11,500 employees), there are 4,500 office machines. Of these, 1,616 are typewriters, 988 are calculating machines. The rest range all the way from check signers and coin counters to paper-drilling and accounting machines.

### The Punch Card

Most of Prudential's big machines are calculators made by International Business Machines Corp. These operate on the punch-card system—that is, holes are punched into cards to represent information. Through a preset arrangement of holes (picture, page 69), a single punch card can hold 80 different facts. (Remington Rand Inc.'s punch card holds 90.) In the case of Prudential, these facts are information about its policyholders.

The significant thing about the punch card is that its

information is not fixed or static. Although the holes stay put, once they are punched, the calculators can be set to use the information in almost any way that's needed. Automatically, these machines will take variables into account. For example: In loan calculations, the amount of principal and interest usually changes from month to month. If the original loan data is correct on the card, the machine can "read" the holes (through brushes which make electrical contacts) and take account of the monthly changes automatically.

Prudential has only recently started to mechanize completely its premium-billing on ordinary policies (those for \$1,000 or over). By November, 1950, it plans to have premium-due notices prepared automatically for 4.3-million policies four times a year through use of punched cards. It already has one I.B.M. machine doing some of these notices; the rest are prepared by girls at mechanical and electric typewriters (pictures, page 66).

Prudential figures that its office machines have saved the company at least \$10-million a year in payroll alone.

## IV. FOR THE GOVERNMENT

Big as it is, the Prudential accounting operation looks tiny compared to some of those done by the federal government. These simply could not exist if it were not for office machines. Of these jobs, the Social Security Administration is the top example.

At its Division of Accounting Operations in Baltimore, Social Security is doing the world's biggest accounting job. As of last Jan. 1, it had in its records 92.3-million separate accounts.

For each account it sets up, the division must keep at least eight and usually nine records.

Setting up the account is just the beginning of Social Security's job. It must keep a running record of all changes in address, marital status, employer, and wages of every one of its 93-million accounts. That means that about 750,000 accounts are processed every working day.

The division uses I.B.M. machines that can literally read, compare, file, sort, and print records. The result: With these machines, a single operator can post an average of 4,600 accounts a day.

Some of the machines and what they can do (I.B.M. and Remington Rand machines are similar in operation):

**The punching machine** permits a competent operator to translate some 2,700 employee wage items into punch-card form in an eight-hour day. This is the slowest of all machine operations because it is done manually.

**The sorter** arranges the punched cards in numerical sequence at the rate of 450 a minute.

**The tabulator** will give as many different kinds of totals as desired from the data punched in the card—at the rate of 150 a minute.

**The collator** compares the punching in one set of cards with that in another set. It can then interfile or distribute cards into matched pockets, reject those which contain errors. It will do this job at speeds varying from 240 to 480 cards a minute.

Besides these machines, Social Security also makes ex-

06 884 283 JANE DOE 3  
 3 KINGSFORD DR PITTSBURG PA  
 ADDRESS CARD  
 HOLE PATTERN

**HOLES IN PATTERNS** on a punchcard are the only language which most automatic calculators understand. Here, on a typical

I.B.M. card, the areas circled in red show the hole patterns that represent various numbers and words

tensive use of microfilm. All the 93-million original applications for account numbers are on microfilm; so is the wage-record information of all wage earners. Just 250 filing cabinets will hold all microfilmed records. By contrast, 20,000 filing cabinets are needed to hold all other material on the wage records.

Social Security pays I.B.M. a little over \$1-million a year for rental of machines. (Rental costs range from \$25 to \$600 a month, depending on the machine.) Yet the average cost for keeping a complete wage history of one worker for a year, and posting to it all the detailed wage reports, amounts to only 13¢.

## V. THE SMALL BUSINESSMAN

Machines which can sort, calculate, tabulate, and do other operations accurately and at high speed have an obvious place in big business. But what about the small businessman? Competition forces him, too, to have accurate information in a hurry and at low cost. But the machines used by big companies like Prudential would cost him more than they are worth.

The dilemma is not so sharp as it sounds. For one thing, there are machines far less complex which will do almost as much. They can be bought for a few hundred dollars.

But there are two main differences between these machines and the big boys: (1) They are not so fast; and (2) they require more manual operation and human participation—and so there is more chance for error.

But even the I.B.M. machines are not completely out of the small businessman's reach. He can get the use of them through 80 I.B.M. service bureaus throughout the country.

### Package Payroll

The best example of this is the so-called "package payroll" plan. Say a businessman has 100 people working

for him. The I.B.M. service bureau sets up three cards for each employee: (1) an earnings card, (2) a deductions card, and (3) a summary earnings card.

At each payroll period, the employer simply sends the service bureau the number of hours each employee worked. This number is punched into the card—and the machine figures out the wage from there.

The cost for this service is 15¢ per worker. I.B.M. sets a minimum of \$8.25 for each payroll period.

## VI. ABACUS AND TYPEWRITER

The mechanical brains which are doing so much of today's business "thinking" did not develop overnight. Man's first calculating machine was the abacus, a series of beads on rods. It probably goes back as far as the sixth century, B.C. It is still used by people all over Asia to do the same things that today's sleek calculators do—add, subtract, multiply, and divide.

But the giant brains of 1949 might never have come into existence without a much later invention—the typewriter. The only language which most automatic calculators understand—so far—is holes punched in cards. And those holes must be punched by a human being who depresses keys just as he does on a typewriter.

The first practical typewriter came on the market about 1874. Made by E. Remington & Sons, Ilion, N. Y., the machine at first was a tremendous flop. The average business executive was insulted by the implication that he could not read the most illegible hand. Besides, it seemed far too complicated a gadget to be practical in an office.

To sell the machine at all, Remington had to promise to get the company which bought it a "type-writer"—a girl trained to operate the machine. Even so, the company sold only about 1,000 machines during the next five years.

But gradually the machine caught on. At the time,

nobody knew what it meant—that the industrial revolution had got its foot in the office door. The typewriter opened the field of office work to women. It made communication easier and faster. It built up the amount of paper work which a business needed to function. Slowly the truth dawned: This was a revolutionary instrument which would change the whole complexion of the business world.

### The Biggest Step

The most important offshoot of the typewriter came only a few years after Remington put its newfangled contraption on the market.

In 1886, a statistician and inventor named Herman Hollerith noted that the U. S. census of 1880 was still being counted. Human beings counted too slowly. Hollerith figured that the only solution was a machine which would count faster. So he invented the punch-card system.

The typewriter and punch card were not the only revolution in office machinery. Desk calculators, for example, were fairly common 50 years ago; they could add, subtract, divide, and multiply just as those of today can. But the difference was that they could supply only one figure at a time for insertion into records. Even today's small calculators can do whole chains of operations, one after another, with many kinds of information, and with a single stimulus from the operator. This "chain reaction" principle shows up as a virtually routine fact in our lives. It is the basis, for example, of the dial telephone.

### The Failures of Machines

Spectacular as many present-day office machines are, they have their faults. The more complicated the machine, the more likely it is to break down. If a single wire gets loose in a big calculator, the whole computation goes wrong—a fact you discover when the job is finished. If the punched cards themselves warp, or swell from humidity, or collect static electricity, the machine stops working. If a punching machine gets out of true alignment, the holes will be in the wrong places and give the wrong answers. And there is always the human error—putting the wrong stack of cards in the machines.

Large sectors of business and industry still have strong objections to office mechanization. They argue that offices have not yet become like factories; the work is still by no means entirely routine. Therefore, they claim, the most efficient machine in any office is the human being.

Some opponents of the punch-card system say that the worst thing about it is the lack of the personal touch. Unless a company keeps an eye peeled, its punch-card system can start costing more than it saves.

Best examples of this kind of breakdown in efficiency are the subscription departments of some magazines. One anti-punch-card executive complained that he had once ordered a year's subscription to a big weekly magazine. He got 22 copies of it the first month—and never heard from the magazine again.



NERVOUS SYSTEM of I.B.M. calculator is complex wiring

### Mechanization vs. System

Strange as it may seem, business executives who resist mechanization have at least one supporter among office-equipment manufacturers. That is McBee Co., which makes and sells its own punch-card system, known as Keysort.

The only similarity between the McBee system and those of I.B.M. and Remington Rand is that all three use cards with holes punched in them. Keysort cards are not run through machines which compute and tabulate from them; instead, they are basically a system of record-keeping and a simple method of sorting those records. Here's how it works:

The card, which may be any size desired, comes with holes already punched around its four edges. Generally this card is the original record (an I.B.M. or Remington Rand card is copied from the original record). The holes around it are coded with the desired numerical, alphabetical, chronological, or direct-sorting classifications. The facts typed on each record are indicated on its edge by cutting a notch from the hole through to the edge of the card. Then an instrument stuck into the hole could slip out through the side.

Say you want to sort your nonproduction workers from the production workers. You take out the cards which are records of all your employees, put them in an upright position on a table. Then you run a sorting "needle" through the cards' holes marked "production," and lift. Since the needle will slip out of the "production" holes, the cards for production workers will stay on the table. The others will be up on the "needle."

## VII. THE COMPANIES

McBee's opposition to the assembly-line office has had no adverse affect on its business. In 1948, its net sales

stood at \$6.5-million—nearly six times its 1938 sales. Although McBee makes other equipment, by far the greater amount of its income is from its Key-sort.

Equally spectacular are the records of some of the other, more mechanized companies:

**I.B.M.** Last year the net income of the industry's giant hit \$28.1-million. That is nearly three and a half times the \$8.6-million the company made in 1938. Probably the major part of this came from rentals of calculating equipment.

**Remington Rand.** Despite the competitive pressure of its big rival, Remington Rand has had no trouble cashing in on the office-equipment boom. Last year's net earnings stood at \$15.1-million as against \$4.5-million in 1938. Unlike I.B.M., Remington Rand sells as well as rents its calculating equipment.

**Underwood Corp.** This company is generally known as a manufacturer of typewriters. But today only a little more than half its sales are typewriters. The rest comes from its five types of accounting machines, four types of adding machines, and a long list of office supplies ranging from carbon paper to stencil supplies. It, too, has shown spectacular financial gains: \$6-million in net earnings last year, against \$1.7-million in 1938.

**Monroe Calculating Machine Co.** Monroe doesn't talk publicly about its income. The most it will say is that business in 1948 was 275% over what it was in 1929. It uses the danger of overmechanization as its strongest sales argument: It points out to customers that the hand system is still the most widely used for accounting jobs like payrolls, says that that's because it's more reliable than any fully automatic method.

**Marchant Calculating Machine Co.** Marchant's net sales in 1947 stood at \$1.2-million; in 1938 they were \$423,399. Marchant makes four calculators, claims that their operation is simpler than competitive machines. Average price of the machines is \$600.

**National Cash Register Co.** Sales jumped from \$144.6-million in 1947 to \$175.5-million last year. The highest prewar year was 1929: \$57-million. National Cash expects sales of cash registers, accounting and adding machines to stay at last year's level. The company's adding machines sell from \$125 to \$500, its cash registers from \$240 to \$2,500, its accounting machines from \$860 to \$5,250.

**Felt & Tarrant Mfg. Co.** Dollar sales in 1948 were nearly four times those of 1939—\$12.4-million. The company makes an adding-calculator called the Comptometer, sells it for an average price of \$500.

**Burroughs Adding Machine Co.** Burroughs has traditionally had the U. S. banks in its pocket. As a result, the record number of checks now being handled, plus a like rise in volume of other banking paperwork, has proved a bonanza for Burroughs. Between 1947 and 1948, its sales nearly doubled—from \$59-million to \$94-million.

**A. B. Dick & Co.** A family-owned company, Dick doesn't make sales figures public. But it does say that, since late last year, the trend of business has been down from previous peaks; there are no order backlogs.

**Dictaphone Corp.** This maker of electronic and acous-

tical dictating and recording machines has about doubled its net income during the past 10 years; it stood at \$586,608 in 1947.

**Pitney-Bowes, Inc.** The world's biggest manufacturer of mailing machines for business and the government has also cashed in on the office-equipment boom. Because of the greater integration of the U. S. economy, mail has become more and more important. Result: Pitney-Bowes' sales have made a five-fold increase in the past 10 years—from \$3.2-million in 1938 to \$16-million in 1948.

## VIII. MORE PEOPLE, TOO

The trend toward office mechanization scares a lot of people. They think that machines which work so efficiently and so fast can't help but bring unemployment among white-collar workers.

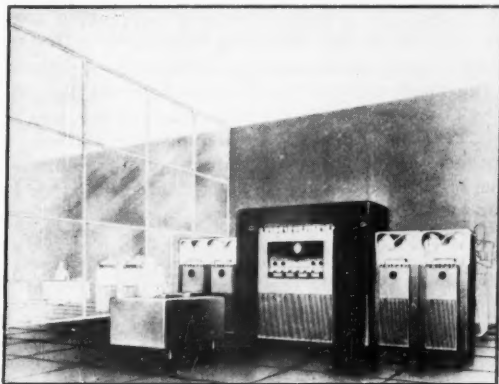
As a matter of fact, exactly the reverse has happened so far. Ever since the 1870's, office employment has been steadily rising—rising faster, in fact, than any other kind of employment (chart, page 67). It is still going the same way, despite office machines.

What the rising number of office workers really shows is an increasing need for paper work in business. In other words, management tries more and more to shift its problems from the realm of things to the realm of paper. There's more than ever to do in offices today. There are not enough people to do it. The result: mechanization.

Technological unemployment in the office has been no real problem so far. The question bothering many is: Will it become a problem in the future?

## IX. MACHINES OF TOMORROW

The office machines in general use today—and especially the punch-card calculators—are in a sense mechanical brains. Given the right information to start with, they can make selections and comparisons, use judgment, figure out problems, give the right answers. They can do this with such skill and speed that they make the human mind seem clumsy. Yet these machines are nothing compared with what is in the works. The office brains of



ELECTRONIC MACHINES like this Univac are not too far away



tomorrow will work thousands of times faster and more smoothly than those of today.

The reason is the basic difference in principle between the mechanical brain and the electronic brain. Both have complex electrical wiring systems which, in effect, are their nervous systems (picture, page 70). But in the mechanical calculator, what might be called the brain is a series of relays (magnetic counting devices) which are driven by electrical impulses. In the electronic calculator, the real gray matter is the vacuum tube, such as you use in your radio. Here's the difference: Where the relay can do about 10 additions a second, the vacuum tube can do thousands.

### The Eniac

The first large electronic computing machine had a tongue-twisting name: the Electronic Numerical Integrator and Calculator (Eniac). It exists only because the Army desperately needed some means of computing artillery tables for its new guns and shells. The calculations were so lengthy that no existing machine could do them in time to be of any use in the war.

Dr. John W. Mauchly and J. Prosper Eckert, Jr., came up with the answer. At the University of Pennsylvania's Moore School of Electrical Engineering, they built the Eniac, sent it to Aberdeen, Md.

The Army was in such a hurry that the two engineers had no time to refine the Eniac. The result was that it is a tremendous machine, having 18,500 vacuum tubes.

Since then, several other electronic calculators have been built. I.B.M. first built what it calls an Automatic Sequence Controlled Calculator for Harvard University in 1944. Later it built one for itself, which it installed at its New York headquarters. This has 12,500 tubes, 20,000 relays, has roughly 250 times the productive capacity of the one it built for Harvard. One reason is that it has a high-speed memory in its tubes of 160 decimal digits. It will do 3,500 additions or subtractions a second.

### The Univac

In a loft building in Philadelphia, the Eniac builders have set up their own company—Eckert-Mauchly Computer Corp. Here they are at work on a machine which bids fair to make all existing electronic calculators obsolete. Essentially, they are trying to make a smaller, cheaper, brainier Eniac—a machine for the business office.

This machine, called the Universal Automatic Computer (Univac), is still in the design stage (picture, page 71). Yet those in the know are so confident it will work that the company already has contracts for six machines. Four of these are with the government, two with private corporations.

The Univac will have a high-speed memory of 12,000 decimal digits. It will do almost a million additions or subtractions a second. It will hold a million decimal digits, or individual facts, on a single reel of metal tape.

There are two main reasons for this tremendous increase in speed: (1) It is completely electronic—that is, it uses all vacuum tubes, no relays; and (2) it uses a tube of mercury for its memory. From the 12,000 digits that this

tube will hold at once, the machine can pick out the right digit for its computation when it needs it.

The Univac is a tremendous improvement over its grandfather, the Eniac. Instead of 18,500 tubes, it will have somewhere around 2,000. It will handle not only numbers but the alphabet as well, in both capitals and small letters. Only one-twentieth the size of the Eniac, it works many times faster. And it will sell for around \$200,000 (the Eniac cost about \$750,000 to build).

Its main claim to a place on the office floor is that it will be more economical than present systems.

Once the information is put on the magnetic tape the machine does all the other operations. This makes record-keeping less of a problem: One reel of tape is to be roughly equal to a whole filing cabinet of I.B.M. cards.

### Electronics on the Way

Whether it admits it or not, every business-machine company knows that the principles of electronic calculation are as practical as the principles of the automobile. And almost every company in the business is working on electronic machines of some kind—although none will talk about them.

Meanwhile there are some partly electronic calculators already working in offices. The most important of these is an I.B.M. electronic calculating punch. It is not all-electronic, because it uses both relays and vacuum tubes. The punch will handle 42,000 punch cards a day.

The mechanical brains of today and tomorrow strike the layman as frighteningly perfect. They aren't; they have the same foibles and failings as any child. The human brain must still guide them and set up the data for them.

But engineers can already visualize an automatic translator, which will read in one language and write in another. There may be an automatic typist, which can read even illegible handwriting and type it out correctly. An automatic stenographer may listen to sounds and type them out as correctly spelled words. And, fantastic as it may sound, scientists think that some day it may be possible to develop a machine which will even translate the sounds made by birds or ants into English.

Thomas J. Watson, the dynamic head of I.B.M., is probably best known outside his own industry for plastering the walls of all I.B.M. offices with signs containing one word: "THINK." In the minds of many people familiar with today's machines, this raises an ironical question: Will Watson's employees have a hand in making it unnecessary for man to think at all?

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### What should you expect from your group insurance?

If correctly planned it can be the best and most economical way to solve many employee relations problems.

### What do we mean by correct planning?

A plan that is really geared to meet *your* Company's requirements and objectives, and one that is flexible enough to allow change with changing conditions.

### How do you get this type of planning?

Select an insurance company with wide group experience, but also consider carefully the qualifications and experience of the men who will work directly with you for that company.

### Why do so many important organizations\* choose Connecticut General?

*\*Listing on Request*



#### THE PROTECTED PAY-ENVELOPE PLAN

For careful, competent, individual study of your situation, investigate Connecticut General's Protected Pay Envelope Plan. It is equally applicable to the needs of large or small organizations. It provides all forms of group protection: life, accident and sickness, hospital, surgical and medical expense insurance and pension plans, singly or in combination.

Connecticut General has been writing group insurance for 36 of its 84 years in business . . . and was one of the first to enter this field. But beyond this the particularly careful selection and training of Connecticut General men assures *you* of unusually well qualified men to handle *your* problems in *your* territory.

A CONNECTICUT GENERAL GROUP MAN CAN CALL ON YOU ANYWHERE IN THE UNITED STATES

**CONNECTICUT GENERAL**  
LIFE INSURANCE COMPANY  
HARTFORD, CONNECTICUT

LIFE, ACCIDENT, HEALTH AND  
GROUP INSURANCE AND ANNUITIES

# How to stretch a good

## *You can do it with* **MECHANIZED**

MECHANIZED SELLING works for you at a cost you can count in pennies. The results pay off in dollars added to your profit margin! Put the high speed and low cost of advertising to work for you. By quickening the first three steps to a sale (see

chart) MECHANIZED SELLING stretches your sales force—adds precious time to each salesman's day which he can devote to the specialized jobs that he, and he alone, can do best: making a specific proposal and closing the order.

### **THAT'S MECHANIZED SELLING AT WORK!**

*Have you seen the new, fast-reading "ORDERS AND HOW THEY GROW"? This 24-page McGraw-Hill booklet describes Mechanized Selling in the language of the man who needs it most—your salesman! We'll be glad to send you a copy.*

HEADQUARTERS FOR BUSINESS INFORMATION

**McGRAW-HILL PUBLICATIONS**

330 WEST 42nd STREET, NEW YORK 18, N. Y.

# salesman

## SELLING

### MECHANIZED SELLING

When your advertising does its job (steps 1, 2 and 3) your salesman has more time for steps 4 and 5.

1

CONTACT

2

AROUSE  
INTEREST

3

CREATE  
PREFERENCE

4

MAKE  
SPECIFIC  
PROPOSAL

5

CLOSE  
THE  
ORDER

THE COST of taking your product to market is usually as important in your profit picture as how many units you sell.

A sales budget that has to be stretched to cover outside selling costs can't help cutting into your profits. That's why your skilled salesman's time is money.

He must use expensive time to the best possible advantage.

You can help him by clearing away preliminary selling chores.

## Handling Car Wheels the **SAFE** way with **BAKER TRUCKS**



- ◆ cuts handling costs!
- ◆ saves time!
- ◆ eliminates accidents!
- ◆ conserves manpower!

Handling car wheels manually has always been a hazardous, costly operation. Illustration shows how one wheel manufacturing company has brought about substantial cost savings, at the same time greatly reducing lost time due to accidents, by mechanizing wheel handling with two Baker 6000 pound Ram Trucks.

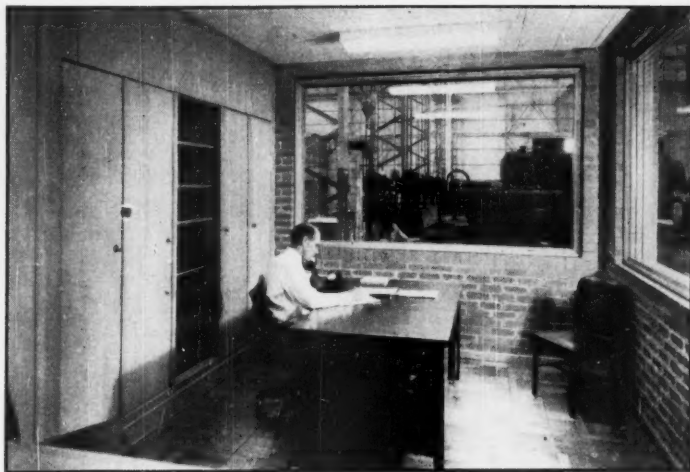
The trucks are used to handle wheels in production. Wheels are carried 6 at a time from the forging machines to the wheel turning machines where they are lined up on the floor awaiting the processing operation. When needed, they are transported to the turning machine, and as they are finished they are moved to the shipping floor, where they await loading into gondola cars by means of overhead cranes.

Wheel hauling is but one of many hazardous industrial handling operations made safe by mechanization with Baker Trucks. A Baker Material Handling Engineer is at your service to solve your specific problems.

**BAKER INDUSTRIAL TRUCK DIVISION**  
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**Baker**  
INDUSTRIAL TRUCKS

## MANAGEMENT



FROM SOUNDPROOF OFFICES for plant foremen, complete with tiled floor, bookshelves, cabinets, and picture windows that give a full view of their working areas, to . . .

## Human Dignity: Vital Part of B

Maker of oil-refinery equipment says tooling includes a company's whole physical setup—individual as well as mechanical.

What kind of reception would you get from your board of directors if you proposed a private office for every salaried employee in your company? Cool, probably. Tradition would be against you. The expense would be unthinkable, unwarranted.

• **It's Done**—C. F. Braun & Co., a California concern that deals in large chips, cheerfully shoulders such an expense. At Braun's headquarters in Alhambra, near Los Angeles, draftsmen and stenographers have private offices. Carl F. Braun (cover) and the men who have helped him build the business from the ground 40 years ago to a 1948 sales volume of \$58.6-million say they couldn't afford to put their people back in "bull pens."

At the very minimum, they agree, privacy and the comfort of pleasant surroundings add 25% to a man's production—often 50% or 100%. In terms of investment cost, says Braun, the only possible argument as to private-office payoff is whether it's 1,000%, or 2,000%, or 3,000%.

• **Not a "Do-Gooder"**—Braun is no dabbler in the sociology of business. He is, among other things, a hard-headed engineer-salesman. He is as cost-conscious, and as alert to a profit opportunity, as the next man.

"But [profit] must come as a byprod-

uct of human service, of providing human satisfactions," he tells his executives. "And the humans to be satisfied first are the humans that make up the company. A company cannot rise above its people."

• **Important**—Though little-known outside its immediate circle of customers, Braun (rhymes with lawn) is a big name in oil refining and in related industry. The company designs, engineers, manufactures, and builds fluid-processing apparatus—from a 15-inch heat-exchanger to a complete refinery.

Braun built Shell Chemical's \$8-million synthetic-glycerin plant in Houston, completed last fall (BW—Sep. 25 '48, p22). Two weeks ago, Stanolind Oil & Gas Co. dedicated a \$10-million refinery near Sundown, Tex. (picture, page 82), for recovery of gasoline from natural gas. This was a Braun "turnkey" job. That is, Braun designed, engineered, and built the plant, manufactured the equipment, and turned over the keys to Stanolind when the refinery was ready to percolate.

• **Other Jobs**—Another turnkey job, due for completion this summer, is the \$15-million catalytic cracker at Linden, N. J., for Esso Standard Oil Co. It will be the biggest in the world, with a capacity of 1-million gal. a day.

Other Braun field crews are at work



PRIVATE OFFICES for draftsmen and other salaried personnel—it all adds up to . . .

## of Braun Tooling

in Canada and in half-a-dozen spots around the U.S. They have built refinery units in the Dutch West Indies, the Dutch East Indies, Mexico, Iran, Colombia, Peru, Venezuela, and Burma. Wherever you find oil, you're likely to find Braun-engineered, Braun-built processing equipment.

• **"Our Company"**—Thus, the people in Alhambra who head a global staff of 6,000 think in broad terms. But they have to be able to focus as readily on things closer to home.

Carl Braun, the founder, president, and principal owner of the business, won't let them forget that their soulless corporation derives its vitality from the hearts of several thousand individuals. It's "our" company, not "the" company. Authority flows, not downward from a top command, but horizontally, radially, from a central management.

• **Dream-Office**—Braun's respect for human dignity was one of the factors in eliminating the bull pens—such as drafting rooms and stenographic pools. The average draftsman would drool at the accommodations provided for his counterpart of Alhambra (picture, above).

The office is 8 x 14 ft., plywood-paneled from carpeted floor to sound-deadening ceiling. Bookshelves, supply cabinets, and coat closets, prefabricated as a unit in the company's cabinet shop, are recessed in the paneling along one wall. Fluorescent fixtures pour a balanced light on the drafting table (also made in the cabinet shop) and on the



## PEEL APPEAL

A banana importer discovered, through bitter experience, that keeping a banana's complexion unmottled over an indefinite period was a problem.

Certain specific temperatures are essential to proper ripening. Regulated temperatures that can retard or hasten the ripening process to coincide with market fluctuations are also important.

So he called in an engineer. That was how Trane equipment came into the picture.

A Trane Climate Changer in the importer's warehouse took over the whole process. It cools, humidifies, or heats, depending upon the requirements. Bananas reach distributors and stores in perfect condition.

Thus Trane material solved another problem. With the same equipment which makes air more efficient, more comfortable, more usable in thousands of stores, offices, plants.

Trane engineers know air. How to warm it, cool it, dry it, humidify it, clean it, or move it. Your local Trane office will be glad to work with your own architect, engineer, or contractor.

THE TRANE COMPANY • LA CROSSE, WISCONSIN  
TRANE COMPANY OF CANADA, LTD., TORONTO

# TRANE

THE HOUSE OF WEATHER MAGIC

MANUFACTURING ENGINEERS OF HEATING AND AIR CONDITIONING EQUIPMENT • OFFICES IN 75 CITIES



# Mailing's faster with a meter!



...There's no fuddling around with stamps, picking the right one, sticking it, sealing the envelope flap—because there aren't any stamps to stick!

The meter *prints* postage as you need it... plus a dated postmark, and small advertisement if you like... directly on the envelope, seals the flap, registers the postage used—all in the turn of a die!

A slight lever adjustment sets the meter for the exact postage needed... for any weight or class of letter or parcel post. You never run out of the right stamp denominations.

Your office postage in the meter is absolutely safe, theftproof, lossproof, foolproof... automatically accounted for. And the meter holds any amount of postage you want to buy!

Mailing is easier, moves faster, with a meter. And metered mail, already cancelled and postmarked moves faster in the postoffice!... There's a postage meter for every office today, large or small. Call the nearest Pitney-Bowes office, or write for the booklet, "So You Have No Mailing Problems?"



## PITNEY-BOWES Postage Meter

PITNEY-BOWES, Inc., 1490 Pacific St., Stamford, Conn.  
Originators of the postage meter... largest makers of mailing machines  
... offices in 93 cities in U. S. and Canada.



draftsman's desk. An air-conditioning outlet in the ceiling protects the occupant from Southern California's hot sun and Los Angeles' smog. Stenographers enjoy the same comforts, privacy, and prestige.

• **The Payoff**—How does Braun justify these luxuries? There are several answers: (1) Far greater output per man; (2) lower maintenance cost (it's cheaper to revarnish plywood paneling every six years than to repaint plaster walls every year or two); (3) higher morale.

But the most convincing proof that they work is that 20 other corporations, including some big ones in the oil industry, have hired Braun to survey their setups in the light of his. In these surveys, Braun engineers have tracked down losses costing millions.

• **You Can Sense It**—At first inspection of the Alhambra layout, you're likely to get the impression that Braun struck a gold mine, and now is indulging a rich man's whims to overhaul the social order. His own people sized him up that way for a while. As long as he wanted to spend the money, they figured they were better off if he spent it on lace-curtain touches around the plant instead of on a yacht.

But spend a few days at the plant and you begin to sense that there's a lot more than whim behind it. Consciously or not, Braun's people tailor their manner, their dress, and even their gait and posture to the cloth that Braun has woven. They're on their toes.

• **Small Start**—Braun didn't start as a rich man. He borrowed \$5,000 to start his business in 1909. Precisely how well it has flourished is the company's secret. It's a closed corporation, owned 80% by Braun and his family and the rest by his close associates and friends.

Earnings figures are not made public, but Braun says that the business is highly profitable. It has a book value of well over \$10-million: that's not a stature it reached by operating in the red.

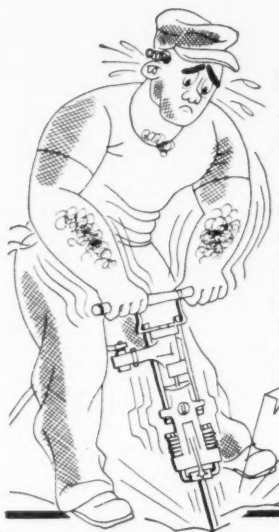
• **Three Principles**—Broadly speaking, the business is guided by three general principles: good tooling, good communication, good ethics.

### I. Good Tooling

Braun's concept of tooling embraces much more than the accepted definition. Good tooling means private offices, for instance, with handsome furnishings. Good tooling means overtooling your shop. "It means having the intelligence to visualize the maximum requirements of a tool during its life span," says Braun, "and then having the guts to buy it."

• **Pleasant Lunches**—Good tooling embraces the whole physical substance of the company. It includes a restaurant building with facilities for everybody. Braun shudders at the term, "in-plant

# They hit it "On the Nose" —with their eyes, ears and mouths



## The Not-So-Musical- Note Test

A rock driller has an ear for his drill. And it is an ear that must know the true pitch . . . because the best way to tell if a drill is operating most efficiently is by the *sound*, not the feel, of the drill.



**The Hot-Flash Test.** It's really amazing, but by watching the color of the gas blowout from a Bessemer converter, the keen sharp eye of an expert steel man can always tell when the process is completed.



**The Slip Test.** A big trade depends on a tiny sip . . . and tea companies pay high salaries to men just to sip or sniff. Accurately, the sensitive palates of these tasters can always tell tea at its best.



## The Cover Test

When a one coat job is all that is necessary to make the interior of a building look like new, what paint will do the job best? Don't guess. Test! Compare any good paint with Barreled Sunlight. Paint a few square feet with each, side by side on a wall. The next morning, when the paint is dry, your eye will plainly tell you that Barreled Sunlight covers better. Yes, and Barreled Sunlight will last longer, will stay fresh-looking longer, will cost you less for both **PAINT AND LABOR** than any other paint on the market.

Want positive proof? Write and your nearest Barreled Sunlight representative will show you exactly what we mean.

**U. S. GUTTA PERCHA PAINT COMPANY**  
1-E Dudley St., Providence, R.I.

# Barreled Sunlight

*Paints*

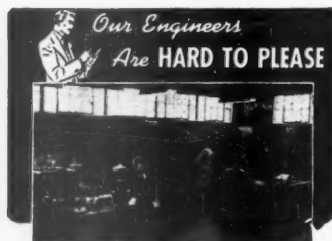
In whitest white or clean, clear, pleasing colors,  
there's a Barreled Sunlight Paint for every job

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Our technicians work tirelessly to lick your pulverizing and dust collection problems and to see that they stay licked.

Steeped in a tradition which rejects the phrase "good enough", they are schooled in the philosophy of constructive dissatisfaction... trained never to "let go" until they have given you a MIKRO-PULVERIZER, a MIKRO-ATOMIZER, or a MIKRO-COLLECTOR insuring the last word in the quality of your product and the very last pound in your potential volume.

It costs you nothing to sample the thoroughness of these efforts in your behalf. Simply send today for your copy of our Confidential Test Grinding Data Sheet.

**PULVERIZING MACHINERY COMPANY**  
37 Chatham Road, Summit, N. J.



feeding." His people aren't fed, they are served. Shopmen may carry their lunches; many of them do. But hundreds patronize the dining room, and enjoy a quality of food and an atmosphere matched by few restaurants.

There is a second dining room for office workers, a third for executives, and a small one where the president entertains as occasion demands. All are served by the same kitchens.

• **Portion Size**—There's no intentional caste system in the restaurant setup. One difference is that the shopmen's dining room serves bigger portions; office workers can eat there instead of in their own dining room where portions are smaller, and a lot of them do. The staff room for the executives has a few frills because management encourages them to entertain visitors.

Braun admits that the restaurant doesn't pay its way—in dollars. It's not supposed to. The deficit, around 30%, is "tooling" expense—providing a club where employees may meet in pleasant surroundings and maintain friendly relations.

• **Little Turnover**—A paternalistic atmosphere? Far from it. In the shop and in the field, Braun has closed-shop agreements with the full range of A.F.L. metal-trades and building-trades unions.

Labor turnover is around 5% a month; that's low, considering that the company is in a capital-goods business with high peaks and deep valleys. Voluntary quits are practically nil.

• **No Yes-Men**—In the white-collar departments, the ability to "yes" the boss is not an asset. Company policies are spelled out in fine detail, so there's bound to be considerable uniformity of thought. But Braun himself regards tradition only as a stepping stone for the imagination.

He once wrote a friend: "Management must replace without hesitation all incorrigible traditionalists, replace them with practical and objective thinkers." The yes-man, a concomitant of paternalism, doesn't last long in that atmosphere.

• **You Find It Everywhere**—Evidence of the Braun concept of good tooling turns up in unexpected places. In men's lavatories, you find shoeshine kits. On the factory floor, you step from the din of roaring machines into the cathedral calm of a foreman's soundproofed office (picture, page 76). The foreman has comfortable furniture, the inevitable bookshelves, a nice selection of books, and, on two or three sides, big picture windows commanding a view of his work area.

You see a few small but attractive red brick buildings near the factory. They house fully equipped private offices for use of customers' inspectors.

• **Grounds**—The Braun site covers 45 acres, 12 of them under roof. All of it

is paved, with the exception of some lawn areas. Why? It costs less to buy a \$3,500 streetsweeper and hire one man to clean the area every morning than to hire a staff of gardeners to hoe weeds day in and day out.

There's plenty of paved parking area. But you may wish to keep your car under roof. There is provision for it. You pay \$14 a month, and the garage attendants keep your car gleaming in the bargain.

• **It Goes for Tools, Too**—To Carl Braun, that's all tooling. He stretches just as far in conventional tooling. There is no room in the factory, in the offices, or in the field establishment for outmoded tools. Why wait until a machine wears out and becomes a maintenance liability before you replace it? In the long pull, it's cheaper to buy a new, modern replacement, whether it be a boring mill or a typewriter.

It's Braun's experience that pennies pinched on capital equipment come back to haunt you as maintenance dollars. Suppose you need a plate shear to cut  $\frac{3}{8}$ -in. plate. It costs a lot of money, but not so much as one that cuts 1-in. plate. So you buy the smaller one. A couple of years later, your needs change. You have to cut some 1-in. plate. The shop takes a chance—and wrecks the shear. Repair is expensive, both in direct dollar cost and in shear-time lost. That's when you begin to wonder whether it wouldn't have been cheaper to buy the bigger shear in the first place.

• **Hold Down Maintenance**—Or take a wornout drill press. It costs money, real money, to rehabilitate it, to keep it in running order. But you keep it, and congratulate yourself on the saving—maybe \$10,000—in capital expense. Meanwhile, you're pouring down the maintenance drain the equivalent of the amortized cost of a new press, probably more, to keep an old one going.

Too often, Braun found in his company, the repair and maintenance account was carrying the load for the capital account. Comparing the two, years ago, he discovered that the company was spending \$3 for maintenance to \$1 for capital. That's when he began junking old tools, tearing down old buildings; ripping out old office furniture. The 1948 ratio was \$1.12 to \$1. In narrowing the gap the company found that the total of the two items dropped almost 50%.

## II. Good Communication

The company's dedication to tooling and communication are underlined in one stroke in its own photolith printing presses and book bindery.

• **Author**—Carl Braun is a prolific writer, with a writer's respect for clear prose. He has addressed this talent toward a

# FLY UNITED AND YOU SAVE DOLLARS AND DAYS



Is travel one of the things your company buys? If so, there's a helpful man you ought to know. He's your local United Air Lines representative. Have him call and study the traveling your operation requires.

Chances are he can show you some interesting cash savings. Like this example—typical of many destinations on United's route.

## ROUND TRIP, CLEVELAND TO NEW YORK

	1st Class Train Fare	United Air Lines
Fare	\$42.10	\$47.70
Lower berth	10.10	..
15% tax	7.83	7.16
<b>TOTAL</b>	<b>\$60.03</b>	<b>\$54.86</b>

But the greatest economy is *more efficient use of time*. What's a day worth in salary of the average person who travels for your company? On United—the only airline that links the East, Midwest, all the Pacific Coast, and Hawaii—several days can be gained on a cross-country trip, several hours on inter-city flights.



**YOUR BEST DOLLAR BUY IS WHEN YOU FLY UNITED**

PASSENGERS • MAIL • EXPRESS • FREIGHT • PARCEL POST



**JOHN  
IS A  
real  
key  
man**

**NOW THAT HE'S  
SOBER!**

Saved from the tragedy of alcoholism! Helped by his "boss" because he was needed . . . and because it made sense to save a loyal key man. When his "boss" realized the trouble . . . that John needed outside help . . . he arranged for John's hospitalization for

#### SEVEN-DAY TREATMENT

—where hundreds are getting a new start through a successful method of treatment for alcoholism. This remarkable method stops the craving for drink . . . aims at restoration to usefulness rather than mere "sobering-up".

*Write today for complete information in confidence*

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**You can have it—  
I don't want it—**

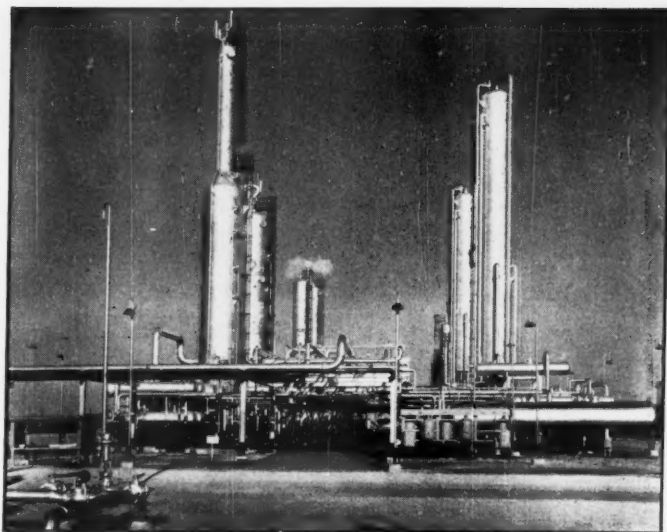


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There's a lot of satisfaction, and peace of mind, too, in knowing your property is protected by a Stewart Chain Link Wire Fence. Stewart's famous All Beam fence framework construction is the heaviest and strongest manufactured . . . built to give the utmost in protection and many extra years of low cost service. Write for Catalog No. 83. It contains complete details.

**THE STEWART IRON WORKS CO., INC.**  
1616 Stewart Block, Cincinnati 1, Ohio  
Experts in Metal Fabrications since 1886

**Stewart** IRON and WIRE  
**FENCES**



"TURNKEY JOB" is what Braun calls installations like this \$10-million refinery for Stanolind Oil & Gas Co. near Sundown, Tex. Braun designed, engineered, and built the plant and all the equipment, turned the keys over to Stanolind when it was all set to go

codification of company policies. No employee has an excuse to be in the dark about where the management stands on any subject. If he is in the dark, it's because he hasn't read Braun's highly readable series of "Letters to an Industrial Organization."

The letters have been printed, some in the Braun printshop, in ten volumes. They range in length from 19 pages to 479 pages. Every employee has the full set, mailed to his home. In addition, through word-of-mouth advertising, the books have achieved extensive outside circulation. Industrialists have bought them by the hundreds for staff distribution.

A few titles will suggest the range of subjects: "Management and Leadership" (that's the fat one); "White Collars and Tools"; "Team Spirit."

• **Write Simply**—A series of four others tackles business prose—letter writing, specifications, engineering presentations. Braun's rule: Omit the cabbage and the flowers; write the way you talk.

"When we think, we think in the terms of today," says Braun in this series. "When we speak, we speak in the terms of today. We don't use slang, or shouldn't, unless it is expressive. But if it is, we use it without hesitation. And metaphor—we use it continually. Hit the ball, pass it up, bow out, go for it—we use these things by the thousands. We make ourselves understood, we make ourselves interesting. And to hell, we say, with the prescriptive grammarians."

• **Write, Then Dictate**—Braun executives dictate their letters, specifications,

memorandums, all written matter—from handwritten copy. The theory: If you write it out in longhand first, you do a better job of organizing, you get it all down—no omissions, no danger of misunderstanding.

This caution in writing is no whim. Braun can make out a strong case against off-the-cuff dictation. Reader time is no less valuable than writer time, he says. And when carbon copies are distributed to many readers, the investment in reading time mounts up.

• **Checkup**—To keep the Braun standards of writing high, each secretary sends a bluesheet copy of everything written for the company to the president's staff of annotators. There are three of these girls, schooled in the Braun style. They check the copy for sentence structure and length, word usage, visual balance, and paragraph length, and return it to the writer with their comments. The girls are available, too, for consultation in the drafting of important documents.

Braun used to do the annotation chore himself—until the company began to grow. To keep his hand in, he still grabs a handful of bluesheets now and then. The checkup is an educational device, not a censorship measure.

• **What "Publicity" Means**—Braun maintains a husky publicity staff to pour out something like 80,000 printed sheets of publicity a month. The publicity people have an enormous mailing list—about 4,500 names. Not a single newspaper or trade journal is on the list. The Braun idea of publicity is to keep all the employees and customers



informed. So the employees and the customers make up the mailing list.

Braun avoids personal publicity. Nowhere in plant or office do you find a photograph of the president, not even in his books.

He never courts press or trade-journal publicity for the company. The company seldom advertises; Braun reasons that the company's service has a limited market, and nobody but employees and customers would be interested.

• **Engineer-Accountant**—Braun's relentless quarrel with tradition produces some unusual results. Some years ago, his despair over traditional accounting ("It's 100 years behind other business practice") came to a boil. His accounting department couldn't see his point, so he called in one of his process engineers, Leonard D. Geldert.

"Len, what do you know about accounting?"

"Nothing."

"Excellent. You're now in charge of accounting."

Geldert is now secretary-treasurer, and a director of the company. Braun is happy with his overhauled accounting. And it's probably a tribute to Geldert's versatility that little Braun blood has been spilled on the floors of the Internal Revenue Bureau.

In pursuit of the same principle, Braun reached into the design-engineering department and picked its chief, Paul M. Terry, as personnel manager.

• **Delegation**—Braun is proud of his ability to delegate full authority to men like these—and to men like Lorne C. Reynolds, vice-president, sales manager, and operating head of the company; Lawrence I. Blennerhassett, director of production; and Harry W. Cunningham, assistant manager. All have been with the company 20 years or more.

"My job here is to teach," says the president. "There's nothing in this plant that can't be done by somebody other than me."

### III. Good Ethics

The final principle of Braun leadership is ethics. "Good business and good morality are practically synonymous," he says. "The better our ethics become, the more confidence is placed in us."

• **How Not to Make Money**—The thread of that philosophy runs through the whole fabric of C. F. Braun & Co. Talking with the founder, you feel that he means it when he says:

"You can't make money simply for the sake of making money. Success in business—happiness at your work—is something that flows naturally from your way of business life. Any business whose first and chief purpose is to make money will defeat its own narrow aim."



## Can you find the Salesman in this picture?

No, it's not the man. He's watching the salesman at work. In fact, he looks at him countless times a day. No, he isn't a "clock watcher", but time is mighty precious to him. You see, he's a key buying influence in an important firm. And he has a warm feeling in his heart for the firm that presented him with that Telechron Promotion Clock... so, naturally, he doesn't object to the firm placing its message right under his nose.

### GIVE Telechron PROMOTION CLOCKS

You, too, can get this preferred position for your firm's reminder advertising at an amazingly low cost. You can easily afford to please at least several hundred of the big names on your salesmen's lists.

Choose from various styles and models with cases of wood, metal or plastic... showing your advertising message. When you do, you're giving something that sells for you every hour in the day,

every day in the year, year after year. Long after other gifts are used up or obsolete, your Telechron Promotion Clock is working all of the time for you. Worth looking into, isn't it? But remember, Christmas gifts should be planned now. So fill in and mail the coupon today. TELECHRON INC., A GENERAL ELECTRIC AFFILIATE.

#### PRODUCT REPLICA CLOCKS, TOO!



Think of the extra value of a clock cased in a replica of your product! Key buyers, distributors, dealers will have your product identity permanently in front of them. What better way to give them something to remember you by?

# Telechron

## PROMOTION CLOCKS

### Your All-Time Point-of-Salesmen

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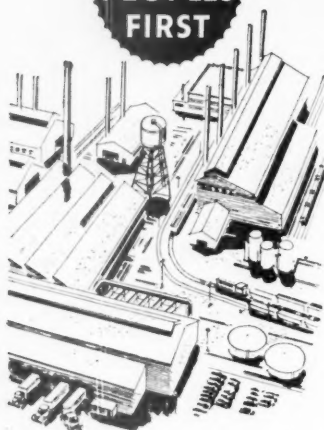
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Pittsburgh has a reserve of unused labor. The small percentage of women in the labor force is especially significant to managements of light manufacturing or service industries who contemplate operations in the Pittsburgh area. The present labor force would require a 27% increase of women and girls to equal the U.S. average—and a 35% increase to equal the average of 33 comparable areas.

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# FINANCE

## How G. M. Dividends Help du Pont Earnings

Year	Du Pont Earnings (millions of dollars)		Earnings per Share of du Pont Common Stock		
	Total After Taxes	From G. M. Dividends*	Total After Taxes	From G. M. Dividends*	% of Total From G. M. Dividends
1929	\$78.2	\$42.9	\$6.99	\$4.15	59.4%
1930	56.0	32.9	4.52	2.98	65.9
1931	53.2	29.9	4.30	2.74	63.7
1932	26.2	12.5	1.81	1.15	63.5
1933	38.9	12.5	2.93	1.13	38.6
1934	46.7	15.0	3.63	1.36	37.5
1935	62.1	22.5	5.02	2.03	40.4
1936	89.9	44.0	7.53	3.98	52.9
1937	88.0	36.7	7.25	3.31	45.7
1938	50.2	14.6	3.74	1.32	35.3
1939	93.2	35.0	7.65	3.16	41.3
1940	86.9	37.5	7.17	3.39	47.3
1941	90.4	37.5	7.44	3.37	45.3
1942	63.9	20.0	5.07	1.80	35.5
1943	69.7	20.0	5.59	1.80	32.2
1944	80.9	30.0	6.60	2.70	40.9
1945	77.5	30.0	6.29	2.70	42.9
1946	112.6	22.5	9.44	2.02	21.4
1947	140.9†	28.2	11.76†	2.54	21.6
1948	157.4	42.3	13.12	3.79	28.9

\* Before taxes, 1929-1946; "after taxes and applicable expenses," 1947-1948.  
million provision for excessive construction cost, equal to \$1.88 per common share.

† Before deduction of \$20.9-

## Must du Pont and G. M. Split?

Justice Dept. wants to make chemical company get rid of its 22% stock interest in auto producer. Case, now before grand jury, is part of big antitrust drive that started last fall.

One of the most important intercorporate tieups in the U.S. is threatened with dissolution today. The Justice Dept.'s Antitrust Division has asked a federal grand jury in Chicago to look into the exact relationship between General Motors Corp. and its chief stockholder, E. I. du Pont de Nemours & Co. Du Pont owns 10-million G.M. shares—22.7% of the total outstanding.

• **Political Angle**—If the grand jury hands down the indictment that Justice wants, you will be reading about the case in the headlines soon. But in a larger sense, it's only a part of the big antitrust drive that got under way back before last fall's election.

Part of the reason for that drive was to leave an embarrassing backlog of antitrust actions to what everyone thought would be a Republican administration (BW—Sep.25'48,p19). The du Pont action was started then (BW—Oct.2'48,p28). Now the whole works is back in the Democrats' laps.

• **Department's Objective**—There is no doubt that, through the years, the divi-

dend income from the big block of G.M. stock has provided a strong support for du Pont earnings (table). But the Justice Dept. will try to prove that du Pont's holdings in G.M. had at least two other effects:

(1) That it provided the Wilmington company with effective working control over the operations of G.M., the country's third-largest nonfinancial business; and

(2) That this control has been used to throw du Pont's way big orders for chemicals, paint, plastics, and other raw materials used by G.M.

• **Points at Issue**—The grand-jury hearings are closed, of course. So no one knows at this point how much evidence the antitrust division has presented, or what it proves. But to make its case, Justice will have to produce figures and records which show:

(1) Whether there are, or have been, any contracts that require G.M. to buy du Pont products exclusively;

(2) Whether, in the absence of such contracts, du Pont got enough G.M.

business to show that there was a conspiracy in restraint of trade;

(3) Whether du Pont's "control" of G.M. ever resulted in similar "diversion" of the business of G.M. subsidiaries.

• **Divestment**—The Justice Dept.'s principal aim is to divorce du Pont of any control whatever over G.M. It wants no du Pont representatives on G.M.'s board of directors; no du Pont influence—direct or indirect—in G.M.'s management. The only way for du Pont to meet those conditions, obviously, would be to get rid of all of its G.M. stock.

How could this be done—if Justice eventually carries the case through to victory in the courts? Offhand, it would seem that either of two methods would be feasible: (1) Du Pont could pass its G.M. shares over to its own stockholders as a special dividend; or (2) du Pont could sell its holdings on the open market. But actually, it's almost certain that neither method would work.

• **Expensive**—A "G.M. stock dividend" would be awfully expensive to many du Pont stockholders. It would be taxable as income; in the case of big stockholders who are in the high income brackets, the actual return would amount to very little.

Even if the company would consider this method, it's doubtful that Justice would accept it. Reason: Such a distribution would leave major du Pont interests with a big block of G.M. stock—probably enough, in the antitrusters' eyes, to assure continued "control."

There are only 11-million-odd du Pont common shares outstanding today. So distribution of G.M. holdings would be practically on a share-for-share basis. Some big blocks, of course, would go to large individual stockholders in du Pont. But that's not all. Close to 3-million G.M. shares would go to Christiana Securities Co., through its ownership of about 27% of du Pont's common. And Christiana has always been closely identified with du Pont family interests.

• **Market Couldn't Take It**—Sales of the G.M. holdings on the open market appears equally unlikely. After all, 10-million shares would be involved. Even in "normal" markets, an operation of that size would badly depress not only the price of G.M. stock, but the entire stock market as well.

And no Wall Streeter considers today's superthin markets as "normal." In the entire year of 1948, less than 2-million G.M. shares changed hands on the New York Stock Exchange.

• **Similar?**—The antitrusters seem to be working on the theory that there is no real difference between the proposed G.M.-du Pont split-up and the shotgun divorces they have won in recent months against integrated companies. Among these: splitting up the manu-

# IMPORTANT NEWS!

## for users of Aluminum

**United States Steel Supply Company**  
has added aluminum to its line of products

Warehouses of the United States Steel Supply Company are now arranging to carry in stock a complete line of aluminum mill and building products manufactured by the Reynolds Metals Company.

This is further indication of the far-reaching expansion program of United States Steel Supply Company and its desire to satisfy more completely the metal requirements of its customers.

Initially, aluminum mill products—such as structurals, bars and sheets are stocked at the firm's Los Angeles, San Francisco, and Chicago warehouses.

Aluminum building products such as corrugated sheets, siding and other materials are in stock at Newark, Baltimore, Chicago, St. Paul, Milwaukee, St. Louis, Los Angeles and San Francisco warehouses.

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UNITED STATES STEEL

*This announcement is neither an offer to sell nor a solicitation of an offer to buy securities. The offering is made only by the Prospectus.*

**NEW ISSUE**

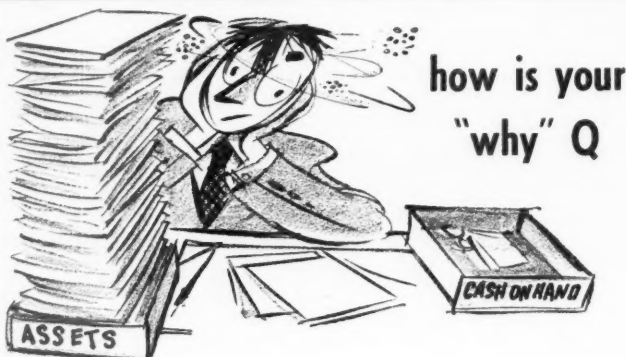
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May 19, 1949.



Physicians, scientists and just plain college professors go into business sometimes, too. But all the combined arts of all these professions can't help the business man when unused machinery and equipment pile up and cash runs low. The "why" Q of this matter doesn't lie within his province.

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facture of Pullman cars and the operation of Pullman service; prying apart the making and exhibiting of movies.

If Justice were to gain a final verdict against du Pont, it would probably favor the pattern set by Paramount Pictures (BW—Mar. 19'49, p98) for the disposition of the G.M. stock.

In essence, this might mean: (1) turning du Pont's G.M. shares over to a voting trustee; (2) issuing "certificates of interest" in the trust to du Pont stockholders; (3) providing that they couldn't exchange their certificates for G.M. stock while they held du Pont stock.

• **Different**—Actually, however, there is a fundamental difference between the Pullman and movie cases and G.M.-du Pont. Pullman, Paramount, and the other big movie companies were all single units. G.M. and du Pont, on the other hand, are two separate corporate entities.

If the Justice Dept. gets its indictment, and the case comes to trial, this factor is certain to bulk large in the defense arguments. Du Pont is sure to insist that its holdings of G.M. stock are an investment—and nothing more. Such a defense would have been impossible in the Pullman and the movie cases.

• **Capital Gains**—Another interesting question could arise if du Pont were ever forced to divest itself of its G.M. stock: Would there be any capital-gains tax to pay? Du Pont has never carried its G.M. stock at anything like current market value. Instead, it has revealed it each year to correspond with its book value. At the end of last year, du Pont valued its G.M. stock at about \$29.15 a share; the market value was around \$60.

So the Bureau of Internal Revenue might well try to collect a capital-gains tax if du Pont were forced to divest. But it probably wouldn't succeed. It has tried before, in similar cases, and the courts—except for some special situations—have always turned it down.

• **Old Friends**—Du Pont's present acquaintance with the Justice Dept. is not limited to the G.M. tieup. The Chicago grand jury, itself, is also looking into possible du Pont arrangements with other companies in which it has investments (such as Remington Arms), and with associates and former associates of G.M. (such as Bendix Aviation).

Other antitrust actions against du Pont charge it with: (1) conspiring to fix prices in the wood-finishes field; and (2) being a part of a monopoly in the manufacture and sale of cellophane.

The cellophane suit was filed in December, 1947. Early this year, du Pont offered to license its cellophane patents to anyone who wanted to enter the field; to furnish complete technical know-how; and to act as consultant and



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contractor in helping to build the plants.

• **Cases Widespread**—There are a lot of other antitrust cases pending that Wall Street might do well to keep an eye on, too. Some of them stem from last fall's stepped-up antitrust drive; some of them go back much farther. Among them are suits intended to:

• Separate American Telephone & Telegraph Co. from Western Electric Co., and split Western Electric up into three competing concerns (BW—Jan. 29 '49, p26);

• Force the Big Four meat packers to split up into 14 separate competitors (BW—Jan. 22 '49, p16);

• Compel Aluminum Co. of America to sell some of its plants (BW—Oct. 2 '48, p28);

• Make United Shoe Machinery Corp. get rid of all plants in which it makes shoe-factory supplies, plus some of those in which it makes shoemaking machinery (BW—Dec. 20 '47, p21). This case went to trial in Boston this week;

• Get the rest of the big movie companies to separate their producing and exhibiting affiliates, along the lines already agreed to by Paramount and RKO.

## FINANCE BRIEFS

New Hampshire savings banks can now invest up to 5% of deposits in investment-trust shares (BW—Mar. 26 '49, p93). But the shares must meet stiff standards; not over a dozen issues are now considered eligible for purchase.

The municipal-bond market is overloaded with new issues. The undistributed supply hit \$178.5-million last week, largest "float" on record. Prices have suffered. The Dow-Jones index of municipal-bond yields (which moves up as prices move down) rose last week from 2.15% to 2.23%, highest since early December.

H. J. Heinz Co. has sold \$15-million of 20-year unsecured notes direct to a group of life insurance companies. Heinz will use the money to finance its expansion.

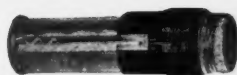
April fire losses were \$55.3-million, 13.3% less than a year earlier. January-April losses, says the National Board of Fire Underwriters, was 11% under the 1948 level.

Rail operating revenues last month ran only 1.3% ahead of April, 1948, despite this year's higher freight rates, the Assn. of American Railroads estimates. April net profits of many individual roads were sharply under a year earlier.

American Broadcasting Co. lost \$64,000

## It pays to use your custom molder's know-how

... say men whose plugs keep aircraft engines dry

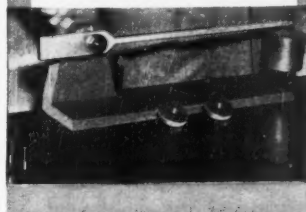


**PROJECT:** Dehydrator plugs for aircraft engines.

**CUSTOMER:** Clark Meral Products Co., Bridgeport, Conn.

**MOLDER:** Bridgeport Moulded Products, Inc.

**MATERIALS:** General-purpose Durez phenolic plastic, metal, glass.



LOW-COST Durez plastic passes both torque (illustrated) and water-vapor tests ... makes these dehydrator plug assemblies cost less ... serve better.

Internal parts of aircraft engines are kept dry and rust-free in shipment and in storage by silica gel crystals. When engines are ready for use, it is only necessary to replace these units with standard plugs.

• Silica gel aircraft engine dehydrator plugs outmode the messy, costly job of coating the interior of new engines with grease and oil, then cleaning and flushing them before use. Their story illustrates a key point in product development:

*When you call in an experienced custom molder and give him a true picture of how and where your product must serve, you go a long way toward insuring production economy and customer satisfaction.*

Here, the molder learned that close tolerances on plastics thread and flats were vital in order to keep moisture out. Likewise the plastic must have torque strength, as the plugs are screwed tight into engine heads and

crankcase openings. Also heat-resistance, since the absorption factor of the silica gel is often renewed by applying heat to it.

This seemed to indicate an expensive special-purpose or impact Durez phenolic. Yet the molder, by suggesting a minor design change, met all specifications with a general-purpose type of Durez ... at substantially lower cost.

A part of your molder's business is to recommend plastics that fit the job. Our business at Durez is to produce them ... in phenolics. We offer you and him constructive help in using plastics most profitably.

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\$5,000**

**A YEAR**

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**STEVEDORE, JR.**

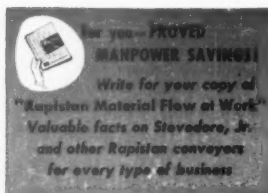


**RS** Stevedore, Jr. power belt conveyor saves manpower! Rapistan case histories show that the average saving in handling materials with one Stevedore, Jr. (loading, unloading, stacking, etc.) is equal to the work of three men. Often that means a payroll saving of more than \$5000 a year! More than 10 times the cost of a Stevedore, Jr.

→ Here are some typical examples: Five men used to take ten hours to unload a boxcar. With Stevedore, Jr. belt conveyor, two men unload in little more than four hours, saving five-sixths of the manpower! Where four men needed two hours to load rugs in a truck, Stevedore, Jr. helps them load in half an hour—just one-fourth of the former time! By reducing handling time to an absolute minimum, Stevedore, Jr. makes it possible for a smaller crew to handle a larger volume of work in less time, with less effort.

Stevedore, Jr. conveyor is just one of many Rapistan Material Flow gravity and power conveyor products specially designed to help you eliminate unnecessary manpower . . . and to move materials with maximum efficiency.

Needless handling eats profits! Cut your manpower costs! Install Rapistan material flow equipment. Whether you need a short-length gravity conveyor or a complete inter-floor system, Rapistan equipment will solve your problem. Rapistan equipment is low in cost, easy to install. It quickly pays for itself and continues to make profits for you indefinitely.



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in the first quarter. A year earlier, with gross sales 6% smaller, it had net income of \$502,000. Reason for this year's loss: high cost of television expansion.

Caterpillar Tractor Co. stockholders have just approved: (1) a 2-for-1 common stock splitup; (2) issuance of 350,000 shares of new preferred. The company will soon sell 250,000 preferred shares to pay off \$21-million of bank loans.

Sinclair Oil Corp.'s first-quarter earnings were \$15-million vs. \$21-million in January-March, 1948. Causes of drop: (1) declining demand for fuel oil; (2) cut in allowed crude production in midcontinent area.

A manpower shortage has prevented Justice Dept. lawyers from taking even a "first look" at 230 tax-evasion cases involving over \$100-million. Assistant Attorney General Theron Lamar Caudle this week asked the Senate for \$114,500 more in the next fiscal year to hire personnel to dig into the backlog.

## Insolvent or Not?

California commissioner says R. I. Insurance Co. is insolvent, takes over business in state. Firm denies charge.

There's a difference of opinion between the California insurance commissioner and Rhode Island Insurance Co., Providence. The commissioner thinks the fire-insurance company is insolvent. The company says it isn't.

• **Stepping In**—Last week Commissioner Wallace K. Downey got a state court order to take over the company's affairs in California. This order doesn't stop the Rhode Island from writing any more business in California. Nor does it cancel any existing policies. But it puts Commissioner Downey in the place of the company's officers and directors, as far as California is concerned.

Downey and the Rhode Island have been carrying on a running fight for about two years. Downey wants the company to drop board chairman Stewart B. Hopps from its management.

• **The Charges**—The Rhode Island company recently merged with Pioneer Equitable Insurance Co. of Indiana. Downey says this merger cost the Rhode Island over \$1-million, pushed it over the edge into insolvency. That's why he asked to take over its California operations. He also told the court that the two companies had merged without his consent, which is required by law.

In his petition to the court, Downey spelled out his reasons for considering

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Electrical conductivity is one example. One ALSiMag composition is generally conceded the best insulator for ultra high frequency. It is widely used in television, radar, radio and electronic heating devices. Another ALSiMag composition is used as a textile thread guide. These highly polished guides are also made of electrically conducting material to bleed off static. They have a hardness of 9 Mohs', and their low coefficient of friction facilitates yarn travel.

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controlled coefficient of thermal expansion, great dimensional accuracy, controlled porosity, predetermined breaking point.

ALSiMag develops the special composition required and fabricates components ready for your assembly line. Modern mass production techniques permit low prices. Some ALSiMag components are actually lower in price than components of less satisfactory materials which do not lend themselves to such efficient fabrication.

The physical characteristics of the more generally used ALSiMag compositions are accurately stated in the ALSiMag Property Chart, sent free on request. The characteristics of special purpose compositions are on record in our Research Division.

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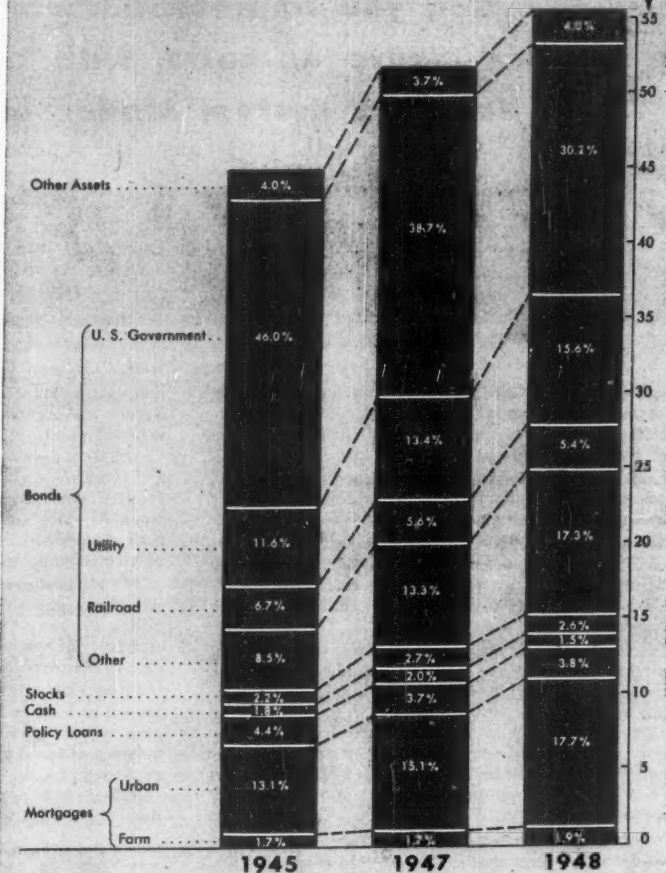
Established 1907 - A Pioneer in  
the Manufacture of Timing Motors.

the Rhode Island insolvent. He charged that "gross mismanagement" had caused a loss of over \$2.8-million from 1946 through 1948; this didn't include the merger costs. He said that the company had written a volume of fire insurance far beyond its capacity to handle out of surplus. It therefore went to other companies to reinsure it—share part of

its risk in return for part of the premium. Since American companies were writing all the fire insurance they could handle, the Rhode Island turned to foreign reinsurers. Commissioner Downey states that at least one of these reinsurance deals lost the Rhode Island a lot of money.

Downey charged that some of the

### Life Insurance Company Assets (billions of dollars)



Source: Institute of Life Insurance.

© BUSINESS WEEK

### Investment Switches Yield Bigger Return

Life insurance company assets are earning more money. The yield on investments went up in 1948 for the first time in 20 years (BW—Apr. 9 '49, p. 92). The assets themselves had reached a new peak of more than \$55-billion by the end of the year. Credit for the bigger yield went mainly to a shift in the investment pattern. The companies were getting out of low-yielding government bonds and into higher-yielding non-

government obligations. Their industrial portfolio increased about \$5.4-billion between the end of 1945 and the end of 1948. Mortgage holdings rose about \$4.2-billion. By the close of last year, the companies were estimated to own about \$383-million worth of commercial rental-properties—most were acquired since the war on purchase-lease-back deals. Their rental-housing projects were valued at \$240-million.

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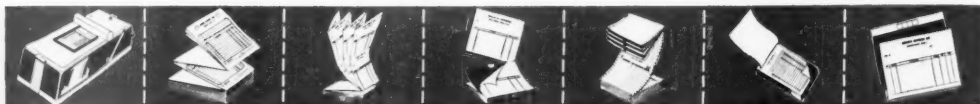
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Rhode Island's business was acquired through insurance agencies in which the company had a financial interest.

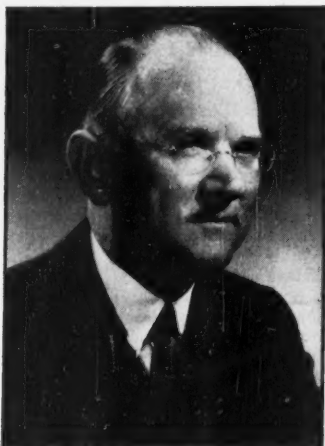
• **Home Backing**—Last year, the company voluntarily withdrew from doing business in the state of New York. But George F. Bisson, insurance commissioner for the state of Rhode Island, is now checking the company's affairs. He says that so far he has found no sign the company is insolvent.

## SALES TAX BEATEN

The trend to municipal sales taxes (BW—Jan. 15 '49, p. 80) got a setback last week. Voters in Monroe County, N. Y., which includes the city of Rochester, decisively turned down a proposal to put a 2% sales tax on the books.

The new sales tax was to have taken the place of a gross-business tax now in existence. Businessmen favored the change; they said the old tax applied whether or not there was a profit, and that it often taxed sales of the same article two or three times.

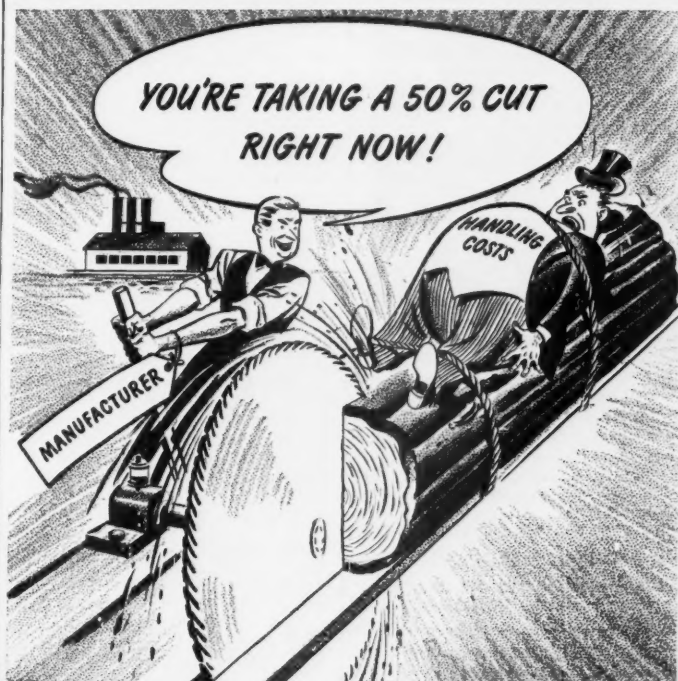
Both A.F.L. and C.I.O. opposed the sales tax. So did Beardsley Ruml, former R. H. Macy chairman. He dropped into town the day before the election and said in an interview that New York City merchants lost a lot of business because of the sales tax there.



## Willys' Chairman

New board chairman at Willys-Overland Motors, Inc., is Ward M. Canaday. He stepped into the job last week when James D. Mooney stepped out. (Mooney had left earlier as president, BW—Apr. 30 '49, p. 38.) Canaday, 64, is no stranger to his job. He reorganized Willys in 1936, served as board chairman from then until 1946. Since then he has been finance chairman. D. G. Roos, vice-president, is operating head of the company until a new president is named.

## Saving Where the Most Can Be Saved . . .



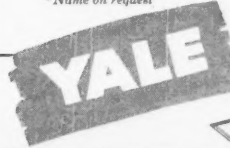
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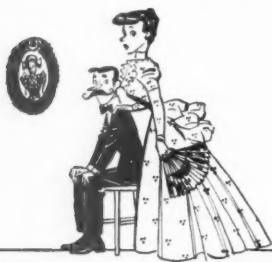
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# THE MARKETS



## Market Tests a Support Level

But this isn't the important one. The real test will come when stocks get down to their 1946 bear-market lows. If they break through that, it could mean real trouble.

Business and Wall Street this week watched stock prices prepare for a new test of the postelection lows (chart). At midweek, the results of the test still weren't clear. The Dow-Jones industrial and rail averages were both hanging right at the resistance level.

• **The Real Test**—But to most observers, this week's market action was only a preliminary event anyhow. As they see it, the real 1949 test will come when the market gets down to its old 1946 bear-market lows, in the neigh-

borhood of 163-165 on the Dow-Jones industrials. They are sure that such a test is coming sooner or later. And they think it will show whether or not stock prices can hold anywhere near their current levels in the face of the general slide in business.

So far, the business dip hasn't upset the market seriously. Stock prices have drifted steadily downward, but there hasn't been any heavy selling pressure. Volume in recent weeks has been so light that you can't attach much importance to the downtrend.

• **Could Hurt**—But if the 163-165 resistance level is tested, and doesn't hold, it could mean the beginning of real trouble for the market. That area has served as a floor for the market ever since the 1946 break. If the averages should finally go through, there would be a rush of scare selling. It might be months before the market found a new bottom.

At the moment, most traders are fairly optimistic about the market's ability to come through a test of the 163-165 support level. They think stock prices have amply discounted the dip

### Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
<b>Stocks</b>				
Industrial	141.5	145.9	144.7	162.5
Railroad	38.3	39.4	39.2	51.0
Utility	72.0	73.6	71.1	73.4
<b>Bonds</b>				
Industrial	98.9	98.8	98.8	97.2
Railroad	81.0	81.3	81.8	88.6
Utility	95.7	95.6	95.6	94.8

Data: Standard & Poor's Corp.

in business already. And they hope that, from now on, the news both from Washington and from Europe will give them some help.

• **Good Omens**—Technically, the market is in a strong position. The short interest on May 13 was 1,628,551 shares, the highest since 1933. Of course, a big short interest isn't exactly a bullish indication. But it does provide a cushion when prices start to drop, and it can put extra steam into a rally. Sooner or later the shorts have to cover.

Bond prices have been firming up lately, and that's good for the stock market, too. Money in general is getting easier as a result of Treasury and Federal Reserve Board policy.

• **Depends on Business**—But the big question in Wall Street's mind is: How far will the decline in business go? So the test of the market's support area won't be decided by technical considerations. The thing that will count will be Wall Street's forecast of where business is headed.

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That's why we think the new issue of our "SECURITY AND INDUSTRY SURVEY" is of particular interest now.

It starts with a general discussion of the whole investment picture, stresses the important forces to consider in a "post-conversion" economy.

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**You'll find facts and figures** on current position, earnings, outlook... charts graphing the 1940-1948 record of each industry in relation to the Merrill Lynch index of 540 stocks... a dividend digest that grades and classifies each company on the basis of various investment objectives. In other words, it's forty-eight pages of fact that should help any investor take better advantage of the many investment opportunities offered today.

**If you have investments**—or if you are considering their purchase—we'll be glad to send you a copy of the "SECURITY AND INDUSTRY SURVEY". More than that, if you would like to tell us about your investment situation, we'll be glad to show you how we think the Survey can be most helpful to you—give you specific suggestions on how you can best attain your own investment objective. Just write—

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## Short-Selling Is at a 16-Year High

You could get a good idea last week of how bearish stock traders have become: The New York Stock Exchange reported that, as of mid-May, short sales of 1,629,000 shares of Big Board issues were on the books. This compares with a short position of 1.5-million shares on Apr. 14. It's the largest short interest since Feb. 29, 1933.

The short sales have spread pretty generally through the list. There are short positions in 60% of the 1,442 Big Board issues. In 75 of these, the short position runs to 5,000 shares or more; in 16, it exceeds 20,000.

• **Silver Lining**—The obvious meaning is that the bears are willing to stake a lot of money on their confidence that prices are going down—that they will be able to buy at bargain rates to "cover" their short sales.

But the bulls say that they are taking a long view and seeing a brighter picture. In fact, they insist they are encouraged by the large size of the short interest. Here's why: Everyone now short of stock will someday have to buy

shares to cover their positions. If the market runs into a bump without much of a short interest existing, it can take a painful spill. But if "shorts" are ready to buy when prices drop, they can provide quite a cushion.

And if the short-sellers get to thinking the bump isn't coming, there can be a rush to cover that turns the cushion into a springboard toward higher prices.

• **Long-Lasting**—It would also take some time to exhaust this latent buying power, the bulls think. The short position now represents the equivalent of 2.13 days' trading, based on the average daily turnover during the past month. This is the highest ratio to prevail since May, 1938, when the market was in the early stages of an eight-month rally that finally sent the Dow-Jones industrial-stock average kiting some 58%.

Below is a list of the 53 Big Board stocks that showed mid-May short positions in excess of 10,000 shares—plus the seven New York Curb Exchange issues with short positions of more than 5,000 shares.

	Short Interest	
	May 13, 1949	Apr. 14, 1949
<b>N. Y. Stock Exchange</b>		
Admiral Corp.	14,657	11,771
Amer. Tel. & Tel.	24,900	7,279
Amer. Woolen	29,712	24,222
Avco Mfg. Co.	25,400	20,800
Bethlehem Steel	12,687	12,217
Celanese Corp.	14,079	8,729
Chrysler Corp.	29,158	27,852
Curtis-Wright	16,890	18,590
Fedders-Quigan	13,785	17,225
General Motors	33,587	32,789
Hudson Motor	39,377	31,528
Illinois Central	29,592	29,970
Int'l Paper	27,726	24,722
Int'l Tel. & Tel.	13,165	15,100
K. C. Southern Ry.	12,049	11,709
Magnavox Co.	15,381	18,286
Mo.-Kan.-Tex. pfd	21,774	22,739
Nash-Kelvinator	14,050	12,025
N. Y. Central	11,305	12,845
New Haven R.R.	10,050	10,334
Pepsi-Cola Co.	51,898	43,877

	Short Interest	
	May 13, 1949	Apr. 14, 1949
<b>N. Y. Curb Exchange</b>		
Philco Corp.	12,408	11,721
Radio Corp.	23,300	27,855
Richfield Oil	31,064	10,005
Sears, Roebuck	23,257	19,781
Std. Gas & E. \$4 pfd	21,815	20,960
Studebaker Corp.	28,181	21,209
Sunray Oil	13,510	12,010
Tex. Pac. Land Trust	11,406	8,586
Union Carbide	13,680	12,277
U. S. & Foreign Sec.	12,970	13,240
U. S. Steel Corp.	24,828	22,180
Gar Wood Industries	14,700	16,130

	Short Interest	
	May 13, 1949	Apr. 14, 1949
<b>N. Y. Curb Exchange</b>		
Amer. Light & Trac.	7,461	6,420
Cities Service	6,905	4,065
Colo. Fuel warrants	15,500	14,100
Kaiser-Frazer	57,168	48,727
Selected Industries	8,825	10,200
United Gas	16,730	2,500
Waltham Watch	8,700	5,800

"Give us the tools . . ."

## The 81st Congress Can Halt the Administration's *SOCIALIST PROGRAM*

**I**n his speech at Massachusetts Institute of Technology, Winston Churchill said that America's possession of the atomic bomb is all that has kept Soviet Russia from overrunning Europe and bombing London.

Our State Department knows that there has been another deterrent to aggressive warfare by Russia and a deciding one. That deterrent is the superior industrial strength of the United States. But once Russia approaches our industrial strength, then watch out! For Stalin or no Stalin, there will be trouble. Therefore, the simple table below is worth every American's careful reading. It shows in percentages what Russia did with her national income in 1948 and what we did with ours:

	USSR	USA
Civilian use .....	60%	79%
New capital equipment and public works .....	21%	12%
Foreign aid .....		2%
Defense .....	13%	5%
Building of inventories and war stock-piling .....	6%	2%

These figures for Russia come from *The* (London) *Economist*, Britain's influential economic journal.

These figures are estimates based on information from behind the Iron Curtain, and so cannot be checked directly. But they fit with what is known of Russian development.

The table shows that Russia is straining every resource to build up its industrial strength. When Russia's effort is measured in *dollars*, and compared to ours, the figures show:

Where we spent \$20 to \$21 billion for new industrial plants and equipment last year, the Russians spent \$12 to \$14 billion.

But while we used about \$9 billion of this to replace old equipment, the Russians spent no more than \$2 billion for replacing old equipment. The Russians had much less worn-out and obsolete equipment to replace. They could concentrate their efforts on expanding their industries and buying new equipment.

So—we used only \$11 to \$12 billion to expand our industries.

And the Russians used almost as much to expand theirs—\$10 to \$12 billion.

**Russia is gaining industrial strength as fast as we are—and may soon be gaining faster. The more she gains and the faster she gains on us, the greater is the danger of war.**

*continued on next page*

*American industry is pushing modernization and expansion hard. It is doing an heroic job. McGraw-Hill's recent survey\* shows that industry already has in hand plans to build plants and buy equipment in the next five years adding up to \$55 billion. Industry plans that investment—and much more—if it can get the money.*

On those plans of industry depend our national security.

*If these plans of ours are cut back, the Russians will be years closer to their goal of industrial equality—the strength that they need to wage aggressive war successfully.*

But more and more our industry's plans are being menaced by socialist policies in Washington. The President continues to urge a further increase in the tax on corporate profits, even though federal taxes alone now take 38 cents of every dollar of profit. He wants \$3 billion more in taxes on corporate profits now, plus added personal taxes.

Last year corporations spent almost two-thirds of their profits—about \$13 billion—for new plant and equipment. This year corporation profits will be lower than last year's \$21 billion, perhaps by 20 per cent. Subtract a fifth or more from last year's profits. Then adopt the President's proposal and take \$3 billion more in corporate taxes and you raise havoc with planned expenditures for new plant and equipment.

**Approval by Congress of the President's tax program would cut industry's program of plant and equipment development by a third or more. That means a major blow to our prosperity as well as our national security. For as capital investment goes, so goes general prosperity.**

Further serious damage would be done by Congressional approval of the President's industry-control bill. The so-called Stability Act of

1949 (the Spence Bill) would severely check industrial progress. That bill would put the federal government in the business of providing the added industrial capacity which the tax program would prevent private industry from doing for itself. It would be hard to conceive a better and surer way to dry up private investment in new plant and equipment. For every dollar of government investment will scare away many times more dollars of private investment. People will not want to risk their money in businesses competing with the U. S. Treasury. At the same time it will attack private investment in another way. It means that government would spend your income for you instead of allowing you to spend or invest for yourself. That is the high and quick road to socialism.

American industry needs right now great courage and incentives if it is to carry out its tremendous building program. It needs also a release from the program of a socialist administration in Washington with its systematic discouragement of enterprise and risk taking.

*Above all, industry needs assurance by the actions of the 81st Congress itself that there is a future in this country for a system of dynamic capitalism, functioning in a free society. By acting now to strengthen the American people's faith in their industrial system, by providing needed incentives for management and investors, by protecting industry's capacity to buy new equipment, the 81st Congress can sustain American industrial progress and keep us united and strong.*

**But if we kill freedom of industrial planning and action by unneeded taxes and government controls we put ourselves—and our friends all over the world—in dire peril.**

Nothing would please the Communists more.

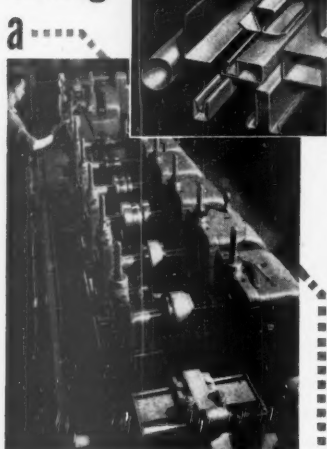


President, McGraw-Hill Publishing Company, Inc.

\*A complete report on our national survey may be obtained by writing McGraw-Hill Publishing Co., 330 West 42nd St., New York 18, N. Y. This is one of a special series of editorials on industry's needs for new plants and equipment.



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## LABOR

### What's Happening to the Cost of Living

	Total Cost of Living	Food	Clothing	Rent	Gas & Elec- tricity	Other + Fuels	House Furnish- ings	Misc.
August, 1939 .....	98.6	93.5	100.3	104.3	99.0	96.3	100.6	100.0
January, 1941* .....	100.8	97.8	100.7	105.0	97.4	104.2	100.1	101.9
April, 1941 .....	102.2	100.6	102.4	105.4	97.3	104.8	102.4	102.2
April, 1942 .....	115.1	119.6	126.5	109.2	96.7	111.6	121.9	110.6
April, 1943 .....	124.1	140.6	127.9	108.0	96.2	118.5	124.8	114.9
April, 1944 .....	124.6	134.6	137.1	108.1	96.0	123.5	132.9	120.9
April, 1945 .....	127.1	136.6	144.1	108.3	95.5	123.7	144.9	123.8
April, 1946 .....	131.1	141.7	154.5	108.4	92.6	127.8	152.0	126.7
April, 1947 .....	156.2	188.0	184.9	109.0	92.5	143.8	182.5	139.2
April, 1948 .....	169.3	207.9	196.4	116.3	93.9	176.1	194.7	147.8
May .....	170.5	210.9	197.5	116.7	94.1	178.5	193.6	147.5
June .....	171.7	214.1	196.9	117.0	94.2	180.6	194.8	147.5
July .....	173.7	216.8	197.1	117.3	94.4	185.0	195.9	150.8
August .....	174.5	216.6	199.7	117.7	94.5	190.1	196.3	152.4
September .....	174.5	215.2	201.0	118.5	94.6	191.0	198.1	152.7
October .....	173.6	211.5	201.6	118.7	95.4	191.4	198.8	153.7
November .....	172.2	207.5	201.4	118.8	95.4	191.6	198.7	153.9
December .....	171.4	205.0	200.4	119.5	95.3	191.3	198.6	154.0
January, 1949 .....	170.9	204.8	196.5	119.7	95.5	191.8	196.5	154.1
February .....	169.0	199.7	195.1	119.9	96.1	192.6	195.6	154.1
March .....	169.5	201.6	193.9	120.1	96.1	192.5	193.8	154.4
April, 1949 .....	169.7	202.8	192.5	120.3	96.8	187.8	191.9	154.6

\* Base month NWLB's "Little Steel" formula. + Ice grouped with "other fuels" prior to June, 1948.  
Data: U. S. Bureau of Labor Statistics; 1935-39 = 100.

## C. of L.: a Pay-Hike Issue

Index is up for April, but down for first quarter. So G.M. workers get 1¢ c.-of-l. cut—but receive 3¢ "standard-of-living" boost. Uncertainty of living-cost trend plagues negotiators.

The Bureau of Labor Statistics consumers' price index jogged up a fraction of a point in the month ended Apr. 15—to 169.7% of the 1935-37 average. It was the second straight monthly gain after a five-month downtrend (BW—Apr. 30 '49, p108). But the two-month rise (seven-tenths of one point) didn't offset a sharp drop between Jan. 15 and Feb. 15.

The result is a net drop of 1.2 points in the cost-of-living index during the first quarter of 1949.

• **G.M. Action**—In labor-management relations, the first people to feel the drop are 273,000 hourly-rated General Motors employees; they are covered by contracts with C.I.O.'s United Auto Workers and United Electrical, Radio & Machine Workers. These now-famous union agreements provide for two things: (1) a 3¢ per-hour "standard-of-living" pay hike for all employees on May 29, end of the first year of the contracts; and (2) quarterly "cost-of-living"

pay adjustments through a sliding wage scale based on the living-cost index.

• **Net Effect**—Point 1 of the contract means that, beginning in June, G.M. workers get an automatic 3¢-per-hour increase in base pay.

Point 2 means that the first-quarter slump in the BLS cost-of-living index will chip 1¢ an hour off the going pay rate, effective June 1.

So G.M. workers' hourly pay will be 2¢ larger beginning in June than it has been for March, April, and May.

Take a longer view: The first cost-of-living adjustment under the contract was a 3¢ raise for September, October, and November. The c.-of-l. index did not change enough to bring either a pay raise or cut for December, January, and February. But it dropped enough to produce a 2¢ pay cut for March, April, and May.

The effect of all these changes is this: As of June 1, the 3¢ cost-of-living raise put into effect last September will have

been wiped out; but the "standard-of-living" raise (Point 1) will put G.M. workers 3¢ an hour ahead of where they were before last September's cost-of-living boost.

G.M. also has a c.-of-l. allowance plan for 68,000 salaried employees. This was worth \$30 for the last quarter; now it will go down to \$25.

• **Price Cuts**—On the basis of the cost-of-living cut in wages and salaries, G.M. has again cut automobile prices (page 24). It is driving home its lesson on the relation between wages and prices—and its action has made the pay-increase drive of all unions a little more difficult this year.

• **Effects**—Wage parleys are just now getting under way in steel, coal, rubber, oil, electrical manufacturing and other key industries. The G.M. action and the BLS report are sure to influence these negotiations, directly or indirectly. Before the next c.-of-l. figure comes along—sometime after mid-June—important union and employer groups will have to stake out bargaining positions on fourth-round wage demands.

This is what they now have to work with:

(1) There's no clear-cut trend in living costs. The two small increases since Feb. 15 aren't convincing evidence that the c.-of-l. downtrend has been broken. Unions are still going to put major emphasis on employers' ability to pay (profits) and labor's welfare needs.

(2) The c. of l. stood, in mid-April, 1949, at just about the same level as in mid-April, 1948—169.7 this year against 169.3 a year ago. Management will use this comparison to back up its stand that it opposes any fourth-round pay increase.

(3) In effect, G.M. has settled its fourth-round pay problem, temporarily at least, at a 5¢ price (through the "standard-of-living" adjustment). This will have a big impact on rival automakers, who face U.A.W. demands which they estimate would cost 50¢ an hour for each worker. Ford and Chrysler say a rise in their labor costs would jeopardize their competitive position. U.A.W.'s answer: G.M. will be asked to meet any pay hike, or contract benefits, given by rival companies—even though the G.M. contract runs through May, 1950.

• **Repercussions at G.M.**—G.M.'s contracts with the two unions provide for quarterly wage reviews, with pay rising or falling 1¢ for each 1.14-point change in the BLS index. But the contract put a floor under wages: Pay can be cut only 5¢ below the newly adjusted rate—no matter how far the c. of l. declines.

U.E. already has asked G.M. to raise the wage floor to the June 1 pay rate. This would bar any further cuts in pay if the c. of l. goes lower. The union warned G.M. of "widespread resent-

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ment" among workers if pay rates drop as they did in March.

Meanwhile, here's the status of other major fourth-round negotiations:

### Coal

John L. Lewis and United Mine Workers' aides opened contract talks this week with the Southern Coal Producers' Assn.—which digs one-third of the nation's soft coal. Opening sessions in Bluefield, W. Va., were exploratory; neither side showed its real hand.

U.M.W.'s big demands are for a shorter work week, a bigger royalty on coal tonnage for the union welfare fund, and some form of share-the-work plan in coal fields (BW—Apr. 30 '49, p100).

### Steel

U.S. Steel has agreed to meet with C.I.O.'s United Steel Workers on June 15 to discuss a wage increase and social-insurance demands (BW—May 14 '49, p113). But it said it cannot negotiate this year on the issue of pensions.

Moreover, it has advised the steel union that it regrets having to talk wages at this time—"in light of the downward trend in cost of living and present uncertainties in the general business situation."

### Electrical Manufacturing

U.E. wants a \$500-a-year increase for members—divided into wages, pension improvements, health programs, and other "fringe" benefits. This would amount to about 25¢ an hour; it would raise labor costs of General Electric an estimated \$96-million a year; of Westinghouse, \$51-million annually.

One local, in Pittsfield, Mass., has bucked international-union policy on a wage hike; its 6,000 members urge the union to forego a fourth-round raise if employers will agree to "reopen closed plants . . . and guarantee a 40-hour work week for the next 50 weeks."

### Rubber

A shift in top leadership of the United Rubber Workers (C.I.O.) is likely to make U.R.W. tougher at the bargaining table. Contract talks are now under way with B. F. Goodrich Co., will spread in June and July to Goodyear, Firestone, and U. S. Rubber. The union wants a 25¢ hourly raise, a shorter work week, and new social-insurance benefits.

### Oil

C.I.O.'s Oil Workers International Union will ask for a cut from a 40-hour to a 36-hour work week, with no reduction in take-home pay. The union estimates the shorter week would be the equivalent of an 11% wage increase.

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OLD AND NEW: L. S. Buckmaster (left) is out, H. R. Lloyd in, as . . .

## U. R. W. Toughens

Union drops old leader for "malfeasance." But real reason may be that it wants militant policy.

An old feud in the United Rubber Workers (C.I.O.) this week knocked Leland S. Buckmaster out of the presidency. He had held the job since 1945. The events that brought on the ouster point to trouble in the industry.

• **Trial**—The union's general executive board, sitting as a trial panel on charges of malfeasance in office, handed Buckmaster his walking papers. H. R. Lloyd, Akron vice-president, then moved up into the president's chair.

Buckmaster, a tall, soft-spoken Hoosier and one of the founders of U.R.W., was specifically charged with working to deprive a local union "of its rights and democratic privileges."

• **Underlying Cause**—But the charges are probably only window-dressing: Anti-Buckmaster forces long have criticized him for what they call lack of aggressive leadership.

That was the big issue behind the election fight that Buckmaster won last year by a narrow 810 to 808 margin (BW—Oct. 2'48, p102).

• **Still Right Wing**—Buckmaster has had strong opposition from Communists in and out of U.R.W. But the shift of leaders doesn't shunt U.R.W. into a left-wing camp in C.I.O.

Lloyd, the new president, made this clear when he said: "I endorse 100% the position of the national C.I.O. in regard to [Communists]. I will fight any

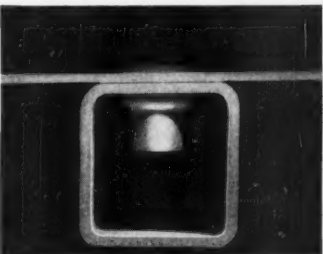
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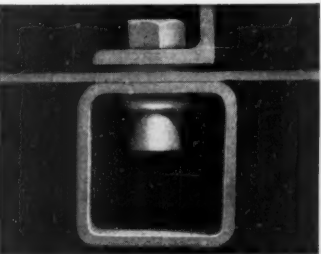
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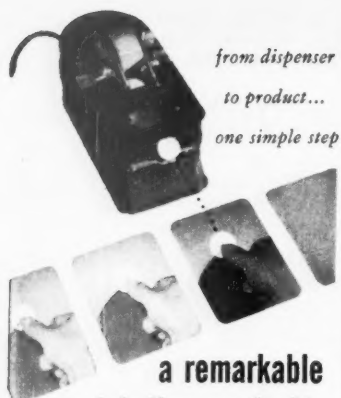
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attempt by Communists to infiltrate or influence our union in any way."

• **Meaning for Employers**—More important for management, he promised U.R.W. members he would "vigorously fight" for the union's fourth-round economic aims (page 100). Observers in Akron interpret that statement—and the whole leadership shift—to mean that:

(1) the union will press its demand for a 6-hr. day; and (2) it will strike unless it gets wage concessions, too.

Obviously, the anti-Buckmaster administration starts off on the spot. It has to produce results enough to convince members that a get-tough policy pays off better than Buckmaster's softer bargaining touch.

## THE LABOR ANGLE

**R**EPORTS out of Washington still say there will be a new labor law before this session of Congress adjourns. And this, indeed, is what most employers have been banking on. They figure that a change in the rules for union-management relations will go into effect by early summer.

But businessmen should now take notice of the possibility that the Taft-Hartley act may stay—as is—for another year. It's by no means a sure thing; but the employer who takes it for granted that the contract he negotiates now will last longer than the Taft-Hartley law should consider the chances of an opposite turn of events.

Two factors invite this new look at the situation.

**T**HE FIRST is purely political: The Administration may be changing its mind about wanting Taft-Hartley erased this year.

One byproduct effect of T-H has been better appreciated by politicians than by businessmen: The law put organized labor deeply into politics. In the 1948 presidential campaign, the unions worked harder, spent more, did more, than ever before. How decisive they were in Truman's victory and the election of a Democratic Congress is hard to say. But in Harry Truman's judgment, they are a highly valued ally. He wants to keep them busy on the political front.

There is no doubt that, when the present session of Congress opened, Truman wanted to make a quick delivery on his promise to labor to kill Taft-Hartley. It then developed that there was more resistance in Congress than he had thought. One thing after another tripped his program. Meantime, the political activity of organized labor intensified. Every new roadblock to T-H repeal called forth a more frenzied labor effort. The White House could not fail to notice this cause-and-effect relationship.

Thus, some advisers to the President now feel that it would be a great asset to the Democratic party in the 1950 elections if Taft-Hartley was still the law of the land. They think that if the unions are satisfied with a new statute by then, they will take a rather mild interest in next year's campaign. So these advisers may be saying to the Administration: Go through all the motions of kicking Taft-Hartley around; but don't repeal it—yet. It's more important to keep labor in a high-gear political drive during 1950's congressional contests.

**T**HE OTHER factor which makes it possible that Taft-Hartley may survive the present session is a parliamentary one. If the Senate passes a new labor bill, it will be by a very narrow squeeze. That bill will most likely be the ultimate compromise its sponsors will make in order to get a majority.

When the House passes a new labor bill, it will be the same story: a compromise by a narrow margin. But the Senate and House bills will very likely differ on one or more points. The two bills will, therefore, have to go to a joint conference committee.

This committee will have to make additional compromises to get something up for a final vote.

But the rules provide that the conference bill cannot be amended by either house. It must be voted either up or down. There is a distinct possibility that the chamber which loses most in the conference version will—because the bill it sent in was already the limit of what it was willing to approve—vote against the final draft.

If this occurs, the whole matter goes back to the House and Senate Labor Committees for a brand new start on the whole process of legislating.

That might effectively kill any chance for a new labor law at this session.



## Union Unity

New C.I.O. crackdown on left, greater cooperation at home and abroad with A.F.L., may lead to eventual merger.

A united A.F.L. and C.I.O. this week seems closer than at any time since the two split in 1935. This is one of the most important aftermaths of last week's A.F.L. and C.I.O. executive board meetings.

Growing prospects that A.F.L. and C.I.O. may get together rise from:

**Their cooperation** on the international labor front. In the past, A.F.L. has refused to take part in any international labor body that included C.I.O. But this attitude has been breaking down gradually—due mostly to cooperation abroad in behalf of the Marshall Plan. Last week, A.F.L. finally decided to take part with C.I.O. in a preliminary meeting of "free trade unions" in Geneva. Object: to form a rival to the Communist-dominated World Federation of Trade Unions, from which C.I.O. withdrew earlier this year (BW-Jan. 22 '49, p. 110).

**C.I.O.'s right turn**, both at home and abroad. A.F.L. has said all along that it couldn't work with a C.I.O. that harbored active left-wing unions. But now C.I.O. is slashing at the party-line affiliates in its ranks. It has told them to comply with national C.I.O. policy—or get out. There's no longer any question that Murray and the C.I.O. rightwing mean business.

**Political considerations:** Both unions are now convinced that the only way they can get what they want, politically, is through real joint action. It's a short step from joint action in politics to joint action in economics—and finally unity.

• **Stumbling Blocks**—But there are two big problems to be ironed out before a merger can get very far. The first is doing something to unscramble the jurisdictional conflicts between the two unions' affiliates. The second is to protect the jobs, power, and titles of the leadership in both groups. Considerable time will have to be spent on these issues when and if A.F.L. and C.I.O. get down to serious talking about unity. Hence the most to be expected this year is more active cooperation at home as well as abroad.

• **Crackdown**—C.I.O.'s board cracked down on leftists by: (1) ordering board members—including a half-dozen leftists—to comply with C.I.O. policy, or resign; (2) taking steps to revoke the Farm Equipment Workers' charter for bucking national C.I.O. policy; (3) warning all leftist leaders of affiliated unions not to have "organizational relationships"

## BUSINESS IN MOTION

*To our Colleagues in American Business ...*

Most of the Revere Metals have utilitarian end uses, going into such products as electric motors and switches, clock movements, automobile radiators and heaters, steam condensers, power plant bus bars, water tube, roofing and flashing, and similar important but unspectacular applications. There are other products, however, in which these fine metals serve the cause of beauty as well as utility. Revere, you see, is an important supplier to manufacturers of jewelry and silverware. To such firms, our copper alloys offer many important advantages, including easy workability, perfect rolling and plating qualities, and a wide range of colors, permitting a good match, if desired, with the precious metals. The strict quality requirements of this branch of the Revere business make it one in which we take pride, even though gold and silverhide our metals from the view of the ultimate consumer.

The most handsome, elaborate and expensive item known to Revere in which its metals are used is a biscuit box, a reproduction of an antique Sheffield piece. This has three interconnected hinged leaves, each with an inner pierced shell, also hinged. Opening one leaf opens them all to the same degree. Thus with one hand it may be closed tightly, opened part way, or all the way. Though intended as a biscuit box to grace aristocratic tables, it can also be used for flowers. The box has over 100 parts, but is beautifully simple to use, and can be easily separated into its main sections for cleaning. The outside is heavily plated with silver, and inside with 24-karat gold.

Revere's share in the production of this expensive item (retailing at over \$100 in the best shops) is confined to supplying the base metal. Revere's Soft Rich Low Brass. This is ideally suited to the elabo-

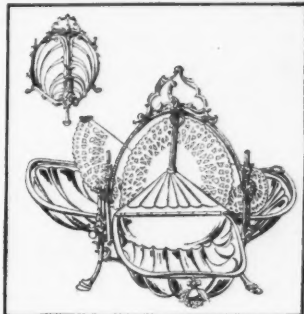
rate pressing, stamping, embossing and chasing methods required to produce the graceful shapes and intricate detail of ornamentation before plating. To the skilled craftsmen who devote their genius to such beauty Revere gives full credit, and they give us equal credit for our metal which they find so suitable for them to work.

From the point of view of volume it cannot be said that this luxurious biscuit box represents a big market for Revere. No matter how attractive and desirable, luxuries are not sold in quantity. Yet Revere takes pleasure in supplying the fine metal required, and has collaborated closely with the maker in selecting the proper alloy and writing specifications for

its gauge and temper. In other words, though the poundage involved is tiny compared with that required for condenser tubes and plates, Revere has given this business close and thorough attention.

It has been our observation that such respect for the relatively small order is well-nigh universal among suppliers, yet we often notice that manufacturers needing such quantities

do not feel entitled to ask big companies for help; they go to distributors. This is indeed the proper thing for them to do. It is the function of distributors to ship smaller orders from their stocks. But it is also the duty of the distributor, and the privilege of his customers, to call upon the supplier for collaboration in such matters as material selection and specification, and even fabrication methods if desired. So Revere suggests that no matter what you make, nor in how small quantities you buy, you avail yourself not merely of the distributors' stocks and knowledge, but also feel free to draw upon the knowledge and experience of the supplier.



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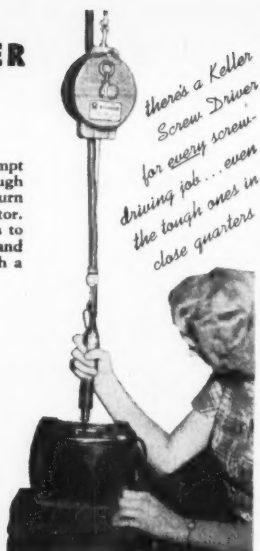
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with A.F.T.U.; (4) condemning the Mine, Mill & Smelter Workers for using "the Communist weapon of fear, intolerance, racial hatred, threats, and other methods which have no place in the decent ranks of trade unionism."

## LABOR BRIEFS

An A.F.L. strike—of construction employees—has halted work on a \$100,000 home for C.I.O. steelworkers' union in New Boston, Ohio. A.F.L. unionists want more pay from contractors.

A 30% pay hike will be the target of the 25,000-member Canadian Brotherhood of Railway Employees when contracts expire July 16. The union got a 17¢ hourly raise last July.

Open-house-party plans that have paid goodwill dividends for employers are outlined in a manual just issued by the Textile Committee on Public Relations. It's the first of a series on community-relations techniques, prepared for the textile organization by Dudley, Anderson & Yutzy, its public relations counsel.

Overtime-on-overtime would be outlawed if a bill just approved by the Senate Labor Committee becomes law. Unlike a bill already passed in the House, the Senate measure: (1) applies to industry generally, not just longshoring and building; and (2) is retroactive to cover accumulated claims.

A new contract between Libbey-Owens-Ford and Pittsburgh Plate Glass and their C.I.O. union skips a wage hike now. It liberalizes some holiday and vacation benefits, has a broader arbitration clause, and provides for a wage reopening on Aug. 1—presumably after steel and auto unions settle on wages.

Fashion models in Houston have organized a union. They want more pay, higher standards to cut down amateur competition.

Fringe costs in contracts of the Coleman Co., Wichita, Kan., amount to 10.1¢ per hour, the company figures. That's about \$200 a year per employee. The breakdown: rest periods, 2.6¢; paid holidays, 2.5¢; vacation pay, 2.2¢; social security, 1.3¢; medical service, 0.7¢; insurance, 0.5¢; sick leave, 0.3¢.

The Pictures—Acme—26; Charles Phelps Cushing—19; Int. News—23; Bob Isecar—65, 66, 67 (lt.), 70; Wide World—25, 54, 113.

## Cost of Idleness

Rising unemployment is draining state jobless-pay funds; so employers may lose their merit-rating credits.

Deepening unemployment in many states has taken a big bite out of jobless-pay reserve funds. While there's no danger that states will be unable to meet obligations to idle workers, there's a chance that the situation will be reflected in employers' tax bills.

Here's why:

**Layoffs** due to curtailed operations have cost many employers their select, low-tax classification under merit-rating programs—which tax employers on a graduated basis, according to the number of jobless-pay claims filed by their employees in any tax period. (The fewer the claims, the lower the tax rate.)

**Reduced funds** in state unemployment-compensation reserves are jeopardizing such merit-rating plans entirely in many states. Rhode Island already has suspended its merit-rating program. New York recently announced that it might not be able to permit merit-rating tax credits this year for employers with good employment records. Other states are running into similar problems.

• **Three States**—Interest in the problems of the funds has focused on three states recently: Massachusetts and Connecticut, which reported they were paying out funds much faster than they were taking them in; and Rhode Island. All have been hit hard by unemployment in the textile industry (BW—May 7'49, p25) and in other manufacturing lines.

Moreover, all three say they expect the present steady drain on jobless-pay reserves to continue into the second half of the year. They agree the situation calls for "serious study"—and possibly some tax readjustments.

• **Merit Rating Dropped**—Employers in Rhode Island will feel the effects of that state's answer to the problem after July 1. A two-year-old merit-rating plan will be junked then. It's being done, according to the Dept. of Employment Security, for "safety reasons"—heavy withdrawals from the state jobless-pay fund have pulled it down below "safe operating levels."

Under the Rhode Island plan, employers with records of stabilized employment have been paying a minimum tax which averages 1.4% of their payrolls. Before the state adopted the merit-rating plan, the tax levy averaged 2.7% of payroll for all employers. The higher rate will go back into effect for the 1949-50 fiscal year.

The state hopes the higher tax will boost employer contributions to the

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fund by \$6.5-million to \$7-million in the next year—and make possible a return to merit rating.

• **Federal Requirement**—A safety-valve clause in the federal unemployment-compensation law forced suspension of the Rhode Island merit-rating program. This clause provides that a minimum tax rate can be collected only when state jobless-pay funds amount to 9% or more of the states' total taxable payroll. If the fund in any state drops to between 8% and 9%, the minimum rate collected must be at least 2.1% of an employer's payroll; if the fund goes below 8%, the rate is 2.7%.

The Rhode Island fund stood at less than 8% on Apr. 1, the date for determining the next period's tax rate.

• **Double**—In New York, payments to the unemployed are running about twice what they were at this time last year. At the same time, there has been a reduction in payroll taxes paid into the unemployment-compensation fund—the result of layoffs. The drain on fund reserves in no way jeopardizes the stability of the New York jobless-insurance fund. It still has a reserve just under \$1-billion—enough, officials estimate, to meet the costs of even a full-fledged depression.

Still, officials said the situation might lead either to reduction or to total suspension this year of merit-rating refunds. New York taxes each employer of four or more persons the full 2.7% rate—then allows tax credits, or refunds, at the end of the year for employers with records of little labor turnover.

Other states are up against the same situation, since most use merit-rating or experience-rating plans.

• **Not Worried**—The drain on state jobless-pay reserves so far is causing little concern in Washington. If any state should exhaust its fund through an extraordinary unemployment situation, it could still borrow from federal funds. There's a balance of about \$7.5-billion in the federal kitty right now—and little prospect of any state having to come in for a loan.

For instance, in Washington records, the condition of a state fund is measured in terms of how far it would go toward paying every covered worker his claims for the full duration of benefits. Some of the percentages this week: Connecticut 64.7%; Maine, 77.8%; Massachusetts, 22.9%; New Hampshire, 57.3%; Rhode Island, 34.6%; and Vermont, 76.6%.

• **Turn for the Better**—The jobless-pay drain lessened, nationally, in April, according to federal figures released this week. The Bureau of Employment Security of the Federal Security Agency reported that total benefit payments in April were \$136,552,000—a drop of \$15,652,000 from the March level of \$152,204,000.



## Strike Strategy

It shows up in string of maneuvers by Ford and U.A.W. to get upper hand, win public and worker support.

Maneuvering in any major strike is bound to be pretty involved.

From the start, of course, both management and the union try to jockey into a position where they can get the best possible settlement terms. But they have to plot their strategy with an eye to a lot of angles: (1) the effect on public opinion; (2) the reaction of the workers; (3) possible changes in future relations between the company and the union; and (4) the amount of income they will lose.

**• Point and Counterpoint**—This week, maneuvering in the strike of the United Auto Workers (C.I.O.) against Ford Motor Co. reached the checkerboard stage. Here are some of the moves that industrial-relations experts had to mull over and analyze:

**Arbitration.** Ford continued to demand arbitration of the speedup issue. It got a generally favorable reaction from the press.

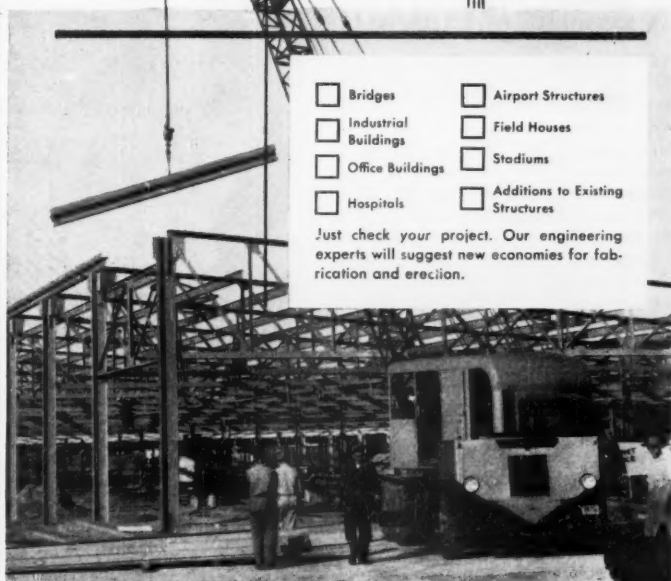
**Back-to-Work.** The company proposed that workers who weren't directly affected by the strike—about 100,000—go back to their jobs. Workers involved in the speedup issue—about 3,000 at the Rouge Building and at Lincoln-Mercury—would stay out until the strike is settled. That looked like a bid to win worker support and weaken union solidarity.

**Mediation.** The entry of the U.S. Mediation Service into the dispute was something the union had been after for a long time. Presumably, it wanted to use mediation partly as a sounding board, and partly to give an official stamp to the dispute. Ford opposed intervention, because it held that the union had violated the contract; it felt there was no point in mediating a breach of an agreement. But Ford changed its position, later invited mediation. Apparently, it didn't want the public to condemn it for blocking a possible chance of settlement.

**Threat of Breakoff.** The union said it would quit the peace talks unless the company agreed to start discussions of contract changes along with the speedup issue. The intent here was obvious: Bury the comparatively minor strike issue under a load of new contract demands.

**Company Challenge.** Ford called U.A.W.'s hand, challenged it to carry out the breakoff. This looked like a public-relations move. Mediators later persuaded the union to hold off on its

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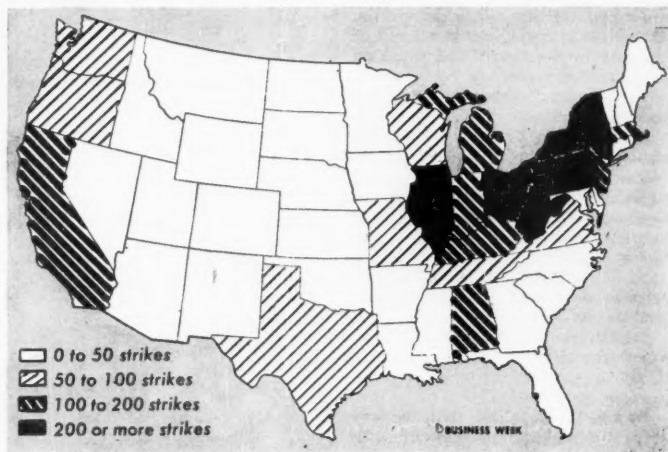
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threat. At the same time, Ford changed its position. The company said it wouldn't bargain on a new contract before June 1, but it would review the agreement then. Ford probably wanted to get clear from a refusal-to-bargain charge that the union was shaping up for NLRB.

**Offer to Arbitrate.** Most observers agreed the union's offer to put the dispute in the hands of a third party

was a smart move. Only the experts saw that U.A.W. wanted to arbitrate a slightly different issue from the one that caused the strike. It asked for a decision on whether the company could work a man in excess of 100% of established production standards. The argument behind the strike was one of impairment of health or safety because of unfair work standards. Obviously the union had thrown a sharp curve.



## Where Strikes Hit Hardest

Which states are most affected by strikes? The answer may be important this year, if the next 90 days bring the expected rash of work stoppages (page 98). Last year was just about normal, as far as the distribution of strikes was concerned. So walkouts this year may follow the same geographic pattern as in 1948 (map).

Heavily industrialized New York (450 strikes) and Pennsylvania (449) had the most walkouts in 1948. Together, they accounted for one-fourth of the 3,419 stoppages reported by the Bureau of Labor Statistics.

Three other states had more than 200 stoppages in the year: Ohio, 256; Illinois, 237; and West Virginia, 211. Seven states had between 100 and 200

strikes. Eight states and the District of Columbia had 10 strikes or less. South Dakota, with three strikes involving only 200 workers, had the best record for the year.

New York City had 295 work stoppages; no other city had as many as 100. There were 96 in Detroit; 66 in Chicago; 57 in Los Angeles; and 53 in Philadelphia. But man-days of idleness in both Detroit and Chicago were higher than in New York City.

Man-days of idleness caused directly by work stoppages topped 2-million in each of six states: Pennsylvania (4.2-million); Illinois (3.5-million); West Virginia (3.1-million); California (2.8-million); Michigan (2.45-million); and New York (2.38-million).

### Work Stoppages Beginning in 1948, by States:

Ala. ....	124	Iowa ....	28	Neb. ....	14	R. I. ....	26
Ariz. ....	7	Kan. ....	13	Nev. ....	7	S. C. ....	10
Ark. ....	12	Ky. ....	117	N. H. ....	18	S. D. ....	3
Calif. ....	178	La. ....	22	N. J. ....	151	Tenn. ....	70
Colo. ....	19	Me. ....	15	N. M. ....	18	Tex. ....	68
Conn. ....	42	Md. ....	25	N. Y. ....	450	Utah ....	21
Del. ....	8	Mass. ....	130	N. C. ....	22	Vt. ....	7
Fla. ....	40	Mich. ....	196	N. D. ....	7	Va. ....	85
Ga. ....	27	Minn. ....	37	Ohio ....	256	Wash. ....	74
Ida. ....	5	Miss. ....	8	Okl. ....	17	W. Va. ....	211
Ill. ....	237	Mo. ....	65	Ore. ....	50	Wis. ....	71
Ind. ....	119	Mont. ....	16	Pa. ....	449	Wyo. ....	4



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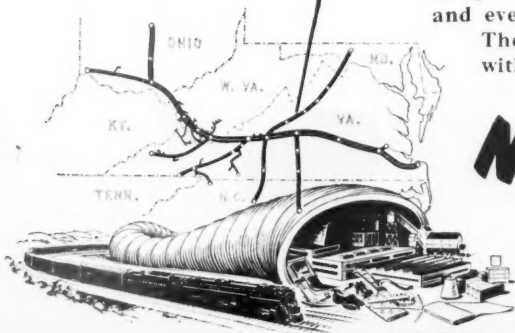
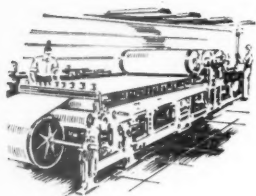
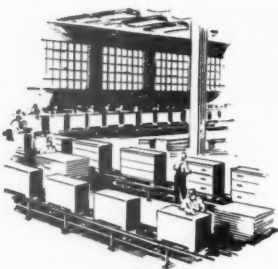
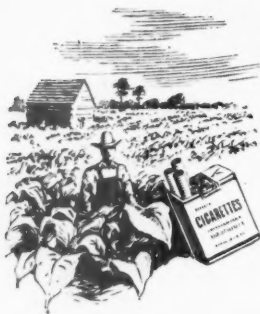
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LAND OF PLENTY

# INTERNATIONAL OUTLOOK

BUSINESS WEEK  
MAY 28, 1949



Why did Vishinsky raise the Far Eastern question the first day of the Paris conference?

Was it a bid for a Soviet-U. S. deal: You keep your fingers out of China, and we'll settle with you on Germany?

It's a safe bet that a global trade was behind the Soviet feeler.

•  
For Stalin, a free hand in China (which would boost Russian influence in Japan and southeast Asia) is probably worth a retreat in Germany.

It wouldn't mean, of course, that Stalin has given up hope of controlling Germany some day. You can be sure he doesn't want the West to have Germany's military potential permanently.

But he may figure that in the long run Germany is bound to gravitate eastward. Reasons: (1) Germany's need to trade with the Soviet bloc; (2) Germany's desire to get back the territory annexed by Poland.

•  
If this is the Russian strategy, there's little chance of a real settlement in Paris.

Washington is in no mood today to back a Nationalist government in China. But neither is it thinking of checking out of China entirely.

Then again, the U. S. feels strong enough today to get a German settlement on Western terms without making concessions elsewhere.

So it looks as if the Paris meeting will be no more than the first in a series of talks with Russia.

•  
The Administration is split over financial aid to Brazil.

The Treasury thinks the Brazilians should put their house in order without an assist from the U. S. taxpayer. It thinks Brazil could do a lot on its own: curb inflation; reform tax policy; improve exchange controls.

State and Commerce Depts. agree. But they think the U. S. should dangle some development credits as encouragement.

State and Commerce aren't plugging for big loans. They're thinking in fairly modest terms—U. S. and World Bank loans of, say, \$100-million to \$300-million over the next five years.

•  
The split in Washington means there's no prospect for an Export-Import Bank or World Bank loan to Brazil soon.

But there might be a joint credit from Ex-Im and private banks to cover the \$150-million Brazil owes U. S. exporters.

And in the long run Brazil is a cinch to get benefits under the Point 4 program. The Abbink report is a good blueprint (BW-Mar. 19'49,p22). And when Brazil's Finance Minister, Luis Castro, gets here in a month or so brass-tacks discussions will get underway.

Meanwhile, Washington is doing a lot of spadework on the Brazilian problem: (1) The Treasury is studying a possible convention to avoid double taxation; (2) Agriculture is planning more technical collaboration with Brazil; (3) State and the National Advisory Council are studying investment guarantees that might fit into a commercial treaty.

•  
British labor is finding there's a limit to what it can get out of state-owned industries. The unions are learning that higher wages and shorter hours in one nationalized industry may hold up similar gains in others.

The railway men's union is the one up in arms now. It has had a wage

# INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

MAY 28, 1949

demand turned down for the second time. Sir Cyril Hurcomb, state transport chief, flatly says that the railways can't afford a bigger wage bill. Traffic has been dropping for many months. And costs have kept going up.

One big cost item, of course, is coal. The coal bill for the railways in 1948 was about \$150-million—three times what it was in 1938.

So the rail workers are turning on the coal miners. They charge: "You miners have asked for so much that rail costs are out of line. Now we can't get a wage boost without striking for it."

Swiss businessmen are growing very critical of the Marshall Plan.

They admit ECA has done a good job stopping Communism in western Europe. But they feel that U. S. aid now could become a dole that destroys initiative in the Marshall Plan countries. What may be a good short-term deal for American exporters, say the Swiss, is sure to hurt American exports in the long run.

Of course what really bothers the Swiss about the Marshall Plan is:

(1) Loss of orders in western Europe to U. S. exporters.

(2) U. S. acceptance of trade and currency controls which hold down Swiss exports and the Swiss tourist business.

There may be a White House order freezing the \$200-million of Chinese assets now held in U. S. banks.

Treasury and State Dept. experts wonder if this isn't the only way to keep the money from falling into Communist hands. They know it wouldn't be hard for the Chinese Communists to blackmail the owners into transferring ownership.

The freeze would have a positive angle, too. It would give the U. S. a lever in dealing with Mao Tse-tung.

The experts are thinking of the wartime technique used by the Treasury Dept. to protect European property owners from pillage by Hitler and Mussolini.

They say the President still has the authority to take action.

However, no decision has been made yet. Both State and Treasury are still mulling over questions like these:

(1) What would a freeze do to businessmen in South China? Wouldn't they be left out on a limb?

(2) Why isn't it just as logical to freeze assets held there in the name of nationals of Russia's European satellites?

The State Dept. has asked President Truman to abolish the U. S. import quota on long staple cotton. State thinks it would be a cheap way of getting Egypt out of a dollar jam.

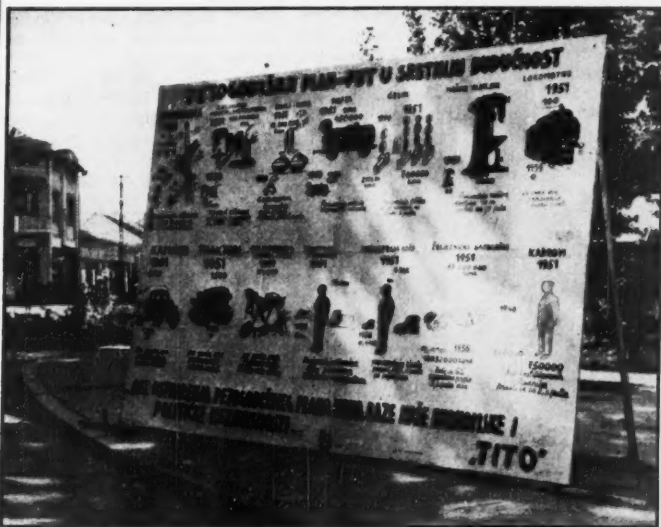
Unless Egypt can sell more long staple in the U. S., there seems no hope of its balancing its dollar trade.

Since 1939 the U. S. has had a lid of 47.5-million lb. a year on long staple imports. Last year the Tariff Commission recommended that the quota be scrapped or greatly expanded. But the President failed to act, presumably for political reasons.

State feels removal of the quota wouldn't hurt American cotton growers too much. U. S. long staple amounts to less than 5% of our average annual crop.



# BUSINESS ABROAD



YUGOSLAV FIVE-YEAR PLAN, at mercy of western trade, poses a . . .

## Shopping Problem for Tito

He needs U. S. machines to carry through industrialization program. But cash is low and credit chances slim, so he will probably have to hunt elsewhere for what he wants.

On the surface, Yugoslavia today looks like a promising field for western businessmen. Even the cautious U. S. Export-Import Bank is considering a \$20-million loan to cover sales of American cotton and machinery to the Yugoslavs. But a real business-with-Tito boom is still something for the future—if at all.

• **Traders' Camp**—It's not because western businessmen are holding off. The widening split between Tito and the Cominform has brought many U. S. traders to Belgrade looking for orders. A British trade mission has been carrying on talks for a long-term deal since March. A French mission arrived in April.

• **Good Prospect**—And Tito of course is keen on the idea of trade with the West. This year is the half-way point in his ambitious Five-Year Plan to boost Yugoslavia's industrial potential by close to 300% by 1951. To make the plan work, Tito has to get western trade. And for obvious reasons he can't afford to let the plan fail.

• **Boom Spikes**—While all this points to increased business between Yugoslavia and the West, two facts may

spike the boom before it gets started:

(1) Barring any large loans, Yugoslavia can buy only as much as it gets for its own marketable raw materials. Western economists put this figure somewhere under \$250-million a year—and not all that in dollars, by a long shot.

(2) The U. S. Government, at least, isn't ready yet to take a Communist dictator into its commercial family. The most the U. S. has done so far has been to give Tito a "special position" under the export-control program (BW—Mar. 26/49, p119).

• **Tight List**—Despite the variety of items in the West's sales campaign, Tito's marketing list is actually a very restricted affair. He wants industrial equipment, primarily. It's a sure bet he won't buy luxury goods; and he has little interest in consumer products.

The things he needs most are heavy machinery, blast furnaces, harbor installations, mining and oil-drilling equipment, industrial chemicals. He will lend an ear to salesmen of spare auto parts and tires, too, as well as to truck and farm-machinery manufacturers. Western oil companies could get

some business, at least until Yugoslavia opens up its own oil wells and refineries. And, for non-Americans, there could be a good market for hides, wool, and cotton.

• **Can't Buy American**—Tito wants U. S. machinery most of all. If all his export revenue were in dollars, he might be able to turn the trick. But Washington figures Yugoslav sales here this year will add up to only \$16-million, at the outside. Even if Tito were to get a \$20-million loan from the Export-Import Bank on top of that, he still wouldn't have enough to make a dent in his Five-Year equipment needs. (The World Bank has been juggling a loan application from Yugoslavia since December, 1947. If it goes through it will probably run close to \$50-million. But the loan doesn't seem to be in the cards.) This means that Tito will have to find the goods in the soft-currency countries of western Europe.

• **Anglo Angle**—Britain, for one, will be only too glad to give Tito what it can. Under an Anglo-Yugoslav pact signed last December, Britain will ship \$60-million worth of machinery, textiles, and chemicals to Tito by Sept. 30, 1949. Tito will counter with an equal amount of food and timber.

Negotiations for a long-term Anglo-Yugoslav trade pact started in March. Both countries have agreed on a long list of trade items.

But, right now, trade talks are stymied over methods of payment and compensation for British property that Tito nationalized. London is pessimistic about an early settlement.

• **Private Deal**—So far, almost all trade with Tito has been on a government-to-government basis. One of the few exceptions is a contract signed by a British concern, Murdoch MacKenzie Engineering Co., to expand Tito's steel capacity. MacKenzie will get more than \$20-million to boost output at the Zenitsa Steel Works in Bosnia, and at other plants.

• **Steel Plans**—U. S. oil and steel engineers in Belgrade are keeping mum about their progress with Tito. The most ambitious deal in the works involves the New York engineering firm of H. A. Brassert & Co. Tito, Belgrade hears, has asked Brassert to draw up blueprints for a huge new steel industry. The company is supposed to be working on plans now. It may be a year or two before Brassert is ready to talk cash, but then the deal might add up to \$100-million.

• **Is It Safe?**—Before Brassert signs any contract, it will have to give serious thought to a question that worries a good many other firms, as well as the Export-Import Bank and the World Bank: Is Yugoslavia a good investment risk? The feeling is that Tito is in sound enough shape for short-term

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credits—probably in better condition than a country like Greece. But for long-term investments, one man's guess is as good as another's.

• **State Has Doubts**—In the end, it will be the State Dept. that will probably determine Tito's credit standing. Trade with Yugoslavia is very much a political problem. State would like to exploit the Moscow-Belgrade split. But it knows that Yugoslavia under Tito will never make an ideal western ally. So State is wooing him cautiously.

The way State sees it, it would be foolish for U.S. businessmen to sink large sums in Yugoslavia. Tito may be more firmly in the saddle than he was before the split with his Cominform brethren. But Russia probably could still unseat him. On the other hand, Tito might use his strategic position and his new industrial strength to force a reconciliation with Stalin. In either case, commitments to U.S. businessmen would go down the drain.

• **Question of Interest**—More important, State has grave doubts that it is in the best interest of the U. S. to give Tito capital to work out his Five-Year Plan. Yugoslavia is still a poor and undeveloped peasant country. Of its 16-million inhabitants, hardly more than a million are industrial workers. The peasants are the ones who are paying the bill for Tito's industrial ambitions. And it is hard to see where they will benefit from it.

Tito's plan takes about 27% of Yugoslavia's \$15-million annual national income. It's all directed toward building a heavy industry. Naturally, the peasant must play second fiddle, both economically and politically, to the industrial worker.

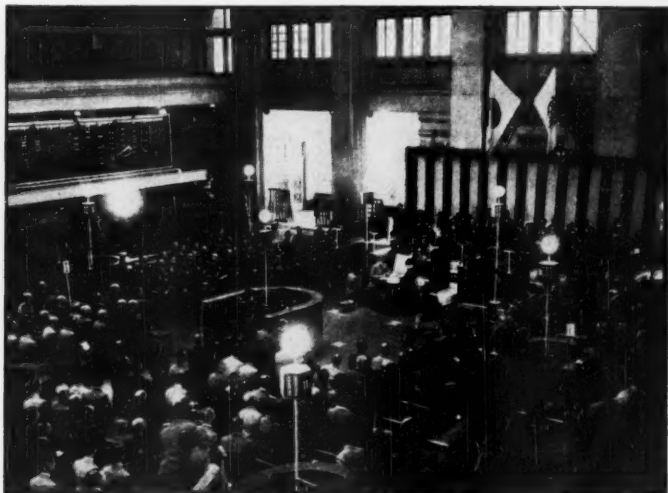
• **Lost Ally**—Thus, from the U. S. point of view, the Yugoslav peasant represents a powerful potential ally. If U. S. capital were to help Tito gain his ends, this ally—along with similar groups in eastern European countries—would be lost.

## BUSINESS ABROAD BRIEFS

Germany's first penicillin plant at Hoechst (near Frankfurt) is getting technical help from Merck & Co. Merck people are supervising construction and training personnel.

An Italian rayon-fabrics maker will probably be the principal bidder for Dallas Mfg. Co.'s textile plant at Huntsville, Ala., when it goes on auction in July.

Monsanto's British subsidiary has doubled production targets at its Newport, South Wales plant, which started up this month. The company is stepping up output at the Ruabon, North Wales plant, too. Object: to cut imports of U. S. chemicals.



## Tokyo Stock Exchange Reopens

The ticker tape is running again in Kabuto Cho, Japan's Wall Street. Gen. MacArthur has reopened the Tokyo Stock Exchange. Here Nipponese traders cluster around the familiar horseshoe trading posts. Exchanges

in Osaka and Nagoya opened at the same time. This move to stimulate Japan's internal flow of capital is part of Washington's plan to put Japan on its own economic feet (BW—Mar. 26 '49, p. 121).

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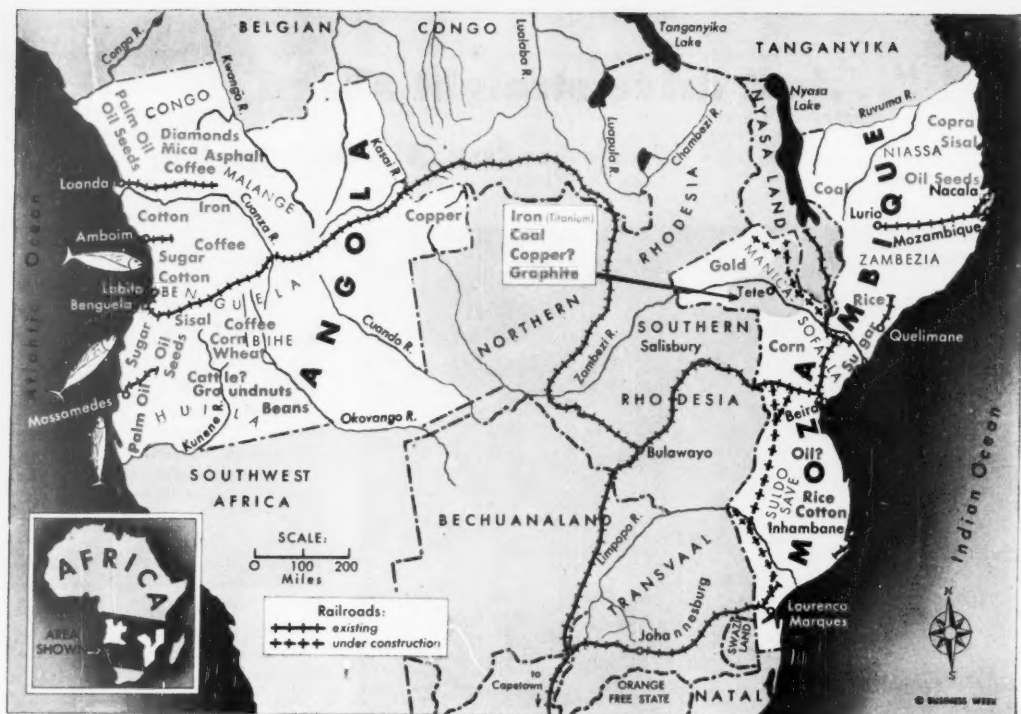
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## Portuguese Africa: Grounds for a Boom

Angola and Mozambique are rich in resources. Question is: Will Salazar give foreign investors freer hand in development?

This week, at Portugal's invitation, the U. S. is meeting with the African colonial powers in Lisbon to clear away a big obstacle to African development—lack of transportation.

• **Portugal Acts**—The fact that Portugal called the meeting is significant. The Portuguese are afraid they will be left off the African-development bandwagon. Well they might be anxious, too. Portugal's benevolent dictator, Antonio de Oliveira Salazar, hasn't been able to do much with his potentially rich colonies of Angola and Mozambique. At the same time he has successfully prevented anybody else from doing anything either.

• **Foreign Aims**—The U. S. interest in the Lisbon meeting is to step up the flow of strategic minerals from Africa's hinterland. Portugal will get a \$10-million loan from ECA this year; most of the loan will go to improve transportation and harbor facilities in Portuguese Africa. An ECA expert is assessing the cost of developing Mozambique's ports right now.

The dollar-conscious British and South Africans are out for the same thing as the U. S. The nearest sea outlets for the rich ores of Southern Rhodesia and the South African Transvaal are the Mozambique ports of Beira and Lourenço Marques. Production in Southern Rhodesia's valuable chrome, copper, and anthracite mines has been cut back because the single-track railway from the mines to Beira is carrying all it can now.

• **Portuguese Development**—For its own part, Portugal is sinking \$50-million into development of its African colonies this year. Mozambique will get \$40-million to extend the railway system around the rich mineral area of Tete and to expand the facilities of the port of Lourenço Marques. Angola will get \$10-million to improve the ports of Loanda and Lobito and start an airfield at Loanda.

While these are hardly breath-taking sums, they are quite substantial for Portugal, one of the lowest-income countries in Europe. Their size does not measure their significance. They may signal the end of an era; Lisbon may be

ready to spend less time writing histories of Portugal's 15th-century maritime explorers and more time planning the 20th-century development of its empire.

• **New Approach**—For a year now Lisbon has shown signs of waking up to its responsibility. True, until Salazar amends his rigid colonial mining laws, foreign investors will stay away in droves. For all practical purposes, the laws leave the exploitation of known mineral reserves to Portuguese capital, which has a record for timidity.

• **Mineral Resources**—But except for these hurdles, Portuguese Africa looks very good indeed. Last year Lisbon released a survey of mineral reserves in Angola and the provinces of Zambezia and Niassa in Mozambique. The surveyors found 12 of the scarce minerals listed under Group 1 of the U. S. Munitions Board's "List of Strategic & Critical Minerals."

In Angola, the findings indicate the presence of several million tons of high-grade manganese ore (40% silicon content). Large reserves of high-grade hematite ore exist in the province of Malange near the Cuanza River. (They are said to be suitable for open-pit mining.) Angola also has deposits of chrome;



asphalt, and quartz crystal of optical grade.

The northern half of Mozambique, especially around Tete, is believed to be as rich in mineral resources as Southern Rhodesia. The Portuguese say that coal production at Tete, now around 17,000 metric tons a year, can be pushed to 600,000 metric tons by 1953. Near the coal deposits are substantial quantities of titaniferous magnetite which might be developed for either titanium or iron.

High-iron-content ore (71.3%) has been found in another district near Tete. Copper deposits are believed to exist in Zambezia. Farther north, graphite deposits have been found.

• **Small Output**—For all this wealth, up to now the only important mineral development in Angola and Mozambique has been the diamond industry, the barometer of Angola's prosperity. Angola produces about 800,000 carats a year.

There is some asphalt and a little mica production in Angola. Off and on, copper and manganese ventures have been started. But for the most part mining has been confined to small, surface operations.

• **Food and Fibers**—In recent years the two colonies have been far more important to Portugal as producers of foods and fibers than as sources of minerals. Coffee, cacao, sisal, raffia, palm oil, peanuts, copra, and beeswax are among the chief export crops. Corn, cotton, and sugar from these areas have turned up in increasing quantities on the Lisbon market. Promising new crops are rice, and, in Angola, timber.

And the great savannahs of southern Angola, much like the plains of British Kenya and Uganda, may someday become a great new cattle-raising area. Part of the area is free from the tsetse fly, whose poisons have so far kept cattle-raising in Central Africa only a promise. The climate is much like that in southern Europe. The areas are going in more and more for mixed farming, with wheat fields adjoining Arabian-type coffee plantations, and apples growing alongside mangoes.

• **Salazar's Regime**—Portuguese African development has been practically at a standstill ever since Salazar started to set up his "New State" in 1928.

Salazar's colonial policy has had two objectives: (1) to keep foreign capital from dominating the colonial economies; and (2) to develop food and raw material resources for the local population and metropolitan Portugal. Beyond that he has not gone.

Article 13 of the Portuguese Colonial Act says: "Concessions granted by the state, even when they are dependent on foreign capital, shall always be subjected to conditions which ensure nationalization and other advantages to the eco-

## Another Plant Cuts Packaging Costs with New High-speed Carton Set-up Machine



AT FRENCH BAKERY CO., CLEVELAND, the Tray-Lock Machine has substantially cut the cost of packaging sandwich buns. Here the packer puts 6 buns in carton set up by the machine, which can attain speeds of 90 units per minute. Output is easily synchronized with the operator's filling capacity.

### Replaces expensive hand set-up method with automatic General Mills Tray-Lock Machine

If your product can be packed in a lock-type carton, the odds are you can cut your packaging costs with the Tray-Lock Machine just as the French Bakery Co., Cleveland, has done. Candy, tomatoes, frozen fish, medical supplies, novelties, plastic items are all being packaged cheaper and faster with this new machine, which sets up cartons automatically from flat, unglued blanks.

Send us a description of your product and the cartons you're now using. We'll be glad to give you complete information about the results you can expect from the General Mills Tray-Lock Machine, together with prices and specifications. Address Dept. B59.

A VARIETY OF CARTON STYLES are produced by the Tray-Lock Machine ranging from 1" to 18" in width, 2" to 14" in length, and  $\frac{1}{4}$ " to 6" in height. Cartons are neatly squared, have straight, sturdy sides with no diagonal scores to weaken them.



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BUSINESS WEEK • May 28, 1945

# ECA'S LEDGER

Congress finally found something politically safe to economize on. This week the House Appropriations Committee slashed \$630-million from ECA's second-year budget.

The way things stand now, ECA will get \$3,568,000,000 for fiscal 1950. Joint House-Senate talks might restore another \$100-million or so.

• **Big Slash**—The House Committee overrode its own subcommittee which thought that a cut of \$182-million was all that expected price declines warranted. But the committee's action goes way beyond that. It will mean that Western Europe will have to go through the tortuous process of cutting back its buying plans by an estimated \$300-million, at least.

ECA administrator Hoffman was caught flat-footed by the last-minute slash. He had expected to scrape through with a cut half the size.

## Other Developments

**Small Business.** Hoffman has assigned two men to figure out how ECA can help the small businessman get more Marshall Plan orders. Soon a full-time deputy administrator will be appointed to the job.

Right now it looks as though the only answer is: "Go out and sell more." ECA does no buying; it's committed to keep as much traffic as possible in normal trade channels. Since most bids on Marshall Plan orders are let in Europe, the big boys with overseas agents or good exporter tieups get the business.

ECA has one suggestion: Small businesses might copy the French "groupe-ment" system. Most nongovernment French buying in the U.S. is done through cooperative purchasing commissions. The French automobile industry, for instance, does all its buying through a single agency. Small U.S. business could do the same thing in reverse. A group could support an export office both here and abroad where individuals couldn't.

**Power, Greece.** The Athens Piraeus Electric Co. is going to get \$6-million from ECA to up the output of one of its steam electric plants by 22,000 kw. It will spend half the money in the U.S., most of the rest in Britain.

**Power, Italy.** ECA plans to spend another \$4.9-million to improve two steam power plants in Italy. A Naples plant will get \$3.4-million to add some 50,000 kw. About \$1.5-million has been piled onto a previous \$4.8-million to increase the capacity of a Palermo plant. ECA has also sunk \$6-million into a power project in Genoa.

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## No Time to Try Fiscal Trickery

One of the most startling and subtle ideas generated in Washington in recent times is contained in a bill introduced last week. Its apparent purpose is to help solve the budget-deficit problem. It would do this by accelerating collection of corporate income taxes. Corporations would be required to pay all of their 1949 income taxes in the first half of 1950, rather than spread the payments over the entire year.

At first glance, the proposal looks like it would accomplish what it purports to do. It would add approximately \$5-billion to tax collections in the 1950 fiscal year. That would be sufficient to wipe out the anticipated deficit.

But it doesn't require much thought to see that there are bad features in the proposal. Those undesirable characteristics, in our opinion, far outweigh any possible good that might be accomplished.

### Deficit Spending Is Unpopular

No one feels good about deficit spending—whether it is governmental or private spending. Businessmen, for example, never like to use red ink on their ledgers. Whenever a businessman is faced with the prospect of running in the red, he attempts to bring his current operations to a point where outgo does not exceed income. So does an individual trying to make ends meet.

Similarly, almost everyone in Washington seems to believe government operations should be kept in the black. The catch, though, is how to do it.

President Truman has one idea. He has called for \$4-billion more in taxes to be levied during the next year in an attempt to balance the budget for the 1950 fiscal year and to provide a surplus for debt retirement. He asked in that budget for approval of almost \$42-billion in expenditures; he estimated prospective revenues at about \$41-billion. Truman would close that gap by the additional tax levy that would fall, according to his suggestions, on corporations and on individuals in the middle-income and high-income classes.

On the other hand, Congress has been attempting to meet the problem of an unbalanced budget by a campaign to prune expenditures. The first effort was made when an appropriation bill for the Labor Dept. and Federal Security Agency was sent back to a Senate committee with an order to reduce the appropriation by 5%. Success of that move was short-lived, however. Additional efforts to trim appropriation requests of single departments were futile. The latest proposal in Congress is to pass all appropriation bills, and then follow them up with a bill directing the President to cut all appropriations by 5%.

Neither the President's suggestion nor the congressional proposals have been immune from attack. The President's request for a new tax program drew considerable criticism right at the start—no one wants to pay more taxes. Criticism increased when national income and employment started to decline—which made higher taxes sound bad economically, as well as politically.

Congress, too, is running the risk of making political enemies by slashing appropriations. Government employees who would lose their jobs are naturally opposed. So are any regions that would benefit by government projects involving large spending in their areas. The economy drive is not vulnerable to attack on economic grounds; in fact, it can be given considerable support. Politically, however, it has a bad taste.

### What Is the Alternative?

The new proposal advanced by Representative Wilbur D. Mills (D., Ark.), for a speedup of corporate-tax collections, has a much more pleasant political flavor. It would get the 1950 fiscal budget in balance without raising taxes or cutting expenses. It might even appear that no one would be hurt by such a proposal, since the corporations affected would have to pay the taxes some time anyway.

However, it is a basically bad proposal for two reasons:

(1) It would merely postpone settlement of the federal fiscal problem for one year. The advantage of stepped-up corporate-tax collections in fiscal 1950 would not carry over to 1951 and succeeding years. In 1951, it would be necessary to take some other step, either higher taxes or lower expenditures, to solve the budget problem. The refusal to deal with the fiscal issue this year would make it even harder to solve the problem at a later date, for deficit spending is an easy habit to get into and a harder one to get out of.

(2) Accelerated tax collections from corporations would be harmful to the individual companies, and also to the whole economy.

Not many corporations are so well-fixed financially that they can meet obligations six months earlier than they usually do. When you consider that corporate income taxes last year were more than \$10-billion, you see that the tax-acceleration plan would require corporations to pay \$5-billion six months before they usually are due.

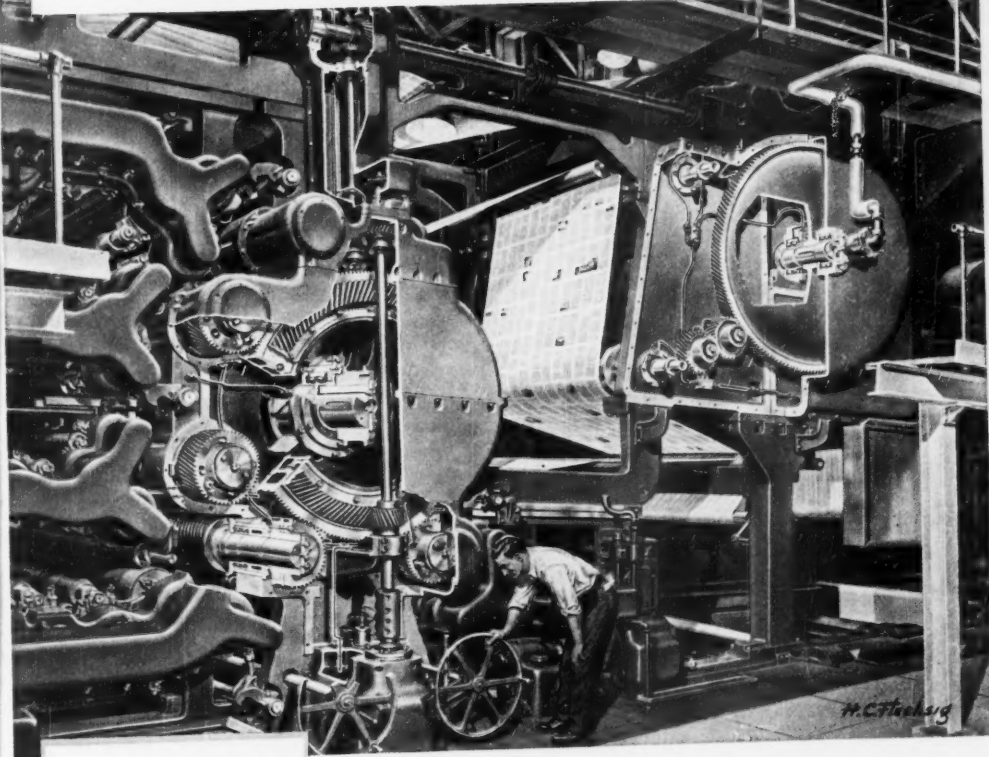
Corporations would have less cash available next year as working capital and for capital expenditures. Many small companies would have a tough time paying their bills—some of them might not survive. Capital expenditures undoubtedly would be cut back drastically, with dire effect on all industry.

The large withdrawal of funds from private hands at the quarterly income-tax dates historically has had a deflationary and a depressing effect on business. Those effects would be even larger next year if corporations had to double their tax payments on Mar. 15 and June 15.

The accelerated-tax-collection proposal obviously is a fiscal trick. It is an unsound suggestion that cannot be supported on principle. Its one advantage is so thin that we can only hope the politically astute people in Washington will see through it, and turn it down on the basis of the threatened harm to the whole national economy.

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## The steel brain that sticks to its knitting

**K**NITTING with only *two* needles is complicated enough for most of us. But a hosiery machine has *hundreds* of needles to keep busy. This job is handled by a "steel brain" like the one shown below—a precisely machined cam whose zig-zag surface guides the needles through an exact pattern of movements as the cam revolves.

Looks simple. But precision machining of the cam's eccentric profile used to be quite a problem for the machinery manufacturers. Because the slightest wear would throw the needles out of kilter the cams had to be

made from exceptionally hard steel. Yet all such steels the manufacturers tried proved brittle and difficult to machine.

Studying the problem, metallurgists of The Timken Roller Bearing Company thought the answer might lie in Graph-Mo—one of the five Timken graphitic steels containing free graphite. And tests by the manufacturer proved that this was the steel they were looking for.

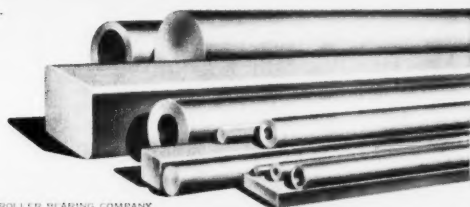
Due to the particles of free graphite in its structure, Graph-Mo was much easier to machine than the steels formerly used. And,

because it contains diamond-hard carbides, Graph-Mo offered even greater resistance to wear. But that's not all! Manufacturers found that Graph-Mo's good hardenability prevented distortion of the cam after hardening.

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